

Zero Waste Graduation Implementation Guide



ENVS 411 Fall 2005
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Table of Contents

Acknowledgements
Humboldt's Vision Statement
Problem Statement
Problem Background
Goals and Objectives
Alternatives and Solutions
Preferred Alternatives
Implementation Strategy
Monitoring and Evaluation
Personal Logs
Correspondences
Sources
Appendix

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The adoption of this proposed project is to be left to the administration and their deciding bodies. We appreciate their vested time and effort in reviewing this project and hope that they feel the same way we do about Humboldt State University and its vision of sustainability.

Sincerely,

Tyler Barns, Roz Litzky, Shaina Meiners, and Lisa Newcamp
The Zero Waste Graduation Project
ENVS 411 Sustainable Campus
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Humboldt State's Vision Statement

Humboldt State University will be the campus of choice for individuals who seek above all else to improve the human condition and our environment.

We will be the premier center for the interdisciplinary study of the environment and its natural resources.

We will be a regional center for the arts.

We will be renowned for social and environmental responsibility and action.

We believe the key to our common future will be the individual citizen who acts in good conscience and engages in informed action.

We will commit to increasing our diversity of people and perspectives.

We will be exemplary partners with our communities, including tribal nations.

We will be stewards of learning to make a positive difference.

Problem Statement

Humboldt State University's commencement ceremony and associated celebrations generate high levels of negative environmental and social impacts.

Problem Background

We define an impact as an ecological footprint or a detriment to the quality of human life. Ecological footprints are the amount of space or the environment necessary to produce the goods and services necessary to support a particular lifestyle. The quality of life can be affected by the processes and procedures used in the creation, distribution, use, and disposal of a product.

Humboldt State University's vision includes the "preservation of the environment and its natural resources." This is an appropriate characteristic of a school that emphasizes natural resources and "learning to make a difference." These values are embodied in school ventures such as the student initiated and run Campus Center for Appropriate Technology (CCAT) - a demonstration home and educational center for sustainable living. Another such example is the initiation of the voluntary Graduation Pledge that vows our seniors to take into account the environmental and social implications of any job they accept. Still further, Humboldt State produces high levels of graduates that enter the Peace Corps. The Humboldt State University's Strategic Plan states its vision for the future is to "provide a socially and environmentally responsible education". Ceremonies celebrating the accomplishments of our students and staff should reflect the values embedded within these commitments. However, our current commencement ceremonies do not reflect this vision of sustainability and social justice. Concessions include disposable plates, cups and utensils. The gowns are flimsy, and generally head immediately to the back of the closet, or the landfill.

Our general reception in particular produces significant amounts of solid waste through paper goods. Food waste created from the reception is thrown away. The program brochures include metals that make them difficult to recycle.

While none of these practices are unusual, they do not reflect Humboldt's vision as being renowned for social and environmental responsibility.

While HSU does have some waste minimizing programs in place, information on the programs that are in place are not widely disseminated or integrated with general graduate information sources. One such program is the Campus Recycling Program (CRP), where plastics, glass, and aluminum bottles are recycled. Although the CRP is an effective program for the reduction of waste, their resources have not been utilized for events such as the Humboldt State Graduation ceremony. CCAT does have a gown recycling program that allows students who wish to donate their used gown to do so that the following batch of graduates do not need to an entirely newly manufactured one. One problem with this program is the lack of accessible information. Too many students are unaware of the gown recycling program.

As an institution of learning, addressing these problems would strengthen the bond between Humboldt's vision and its practices. The environmental and social impacts created by the graduation ceremonies can be mitigated, taking the next logical step in the process of "learning to make a difference."

Goals and Objectives

1. Goal: Promote public involvement and awareness of zero waste philosophy.
 - A. Objective: Create an interest on-campus with students and faculty on campus to demonstrate the importance of having a zero waste graduation event.
 - B. Objective: Fulfilling Humboldt State University's vision of being "renowned for social and environmental responsibility and action."
2. Goal: Lessen negative environmental and social impacts of Humboldt State University's graduation ceremony.
 - A. Objective: Reduce solid waste by 20 % the first year.
 - B. Objective: Increase recycling by 20 % the first year.
 - C. Objective: Reduce vehicles to event by 10% the first year.
 - D. Objective: Increase reuse of gowns by 25% the first year.
 - E. Objective: Increase the amount of recycled and/or less harmful products to 20% the first year.
3. Goal: Provide education and increase awareness in an effort to mitigate negative environmental impacts.
 - A. Objective: Convey information to at least 75% of visitors.
 - B. Objective: Determine effectiveness of education post event
4. Goal: Ensure repeatable process for future graduation ceremonies.
 - A. Objective: Participation goal of 50% of all people attending commencement and/or receptions in zero waste activities.

Solutions and Alternatives

Goal 1: Promote public involvement and awareness of zero waste philosophy.

A. Objective: Create an interest on campus with students and faculty on campus to demonstrate the importance of having a zero waste graduation event.

1. Alternative 1: Aggregating groups on campus in order to network ideas, aid, and services.
 - a. Positives- Provides for more efficient services and volunteer work under one acting body, thus limiting miss interpretation and faulty communication.
 - b. Negatives- Multiple clubs and programs exist on campus with their own staff, aggregation of these clubs could lead to loss of jobs and or clubs as a whole.
2. Alternative 2: Create informative brochures stating objectives and visions.
 - a. Positives- Conveys information clearly to public and student body. These brochures are easy to reproduce and modify as needed.
 - b. Negatives- Wastes paper and other printing material.
3. Alternative 3: Coordinate meetings with strategic persons on campus (students and faculty) to align ourselves for promoting a zero waste event.
 - a. Positives- Clear communication enables an efficient process where all vested parties are kept abreast of the situation and current issues.
 - b. Negatives- Will create paper waste if done through a contest
4. Alternative 4: Create a symbol that represents the zero waste philosophy.
 - a. Positives- People can identify a symbol with a philosophy,
 - b. Negatives- Will create paper waste if done through a contest

B. Objective: Fulfilling Humboldt State University's vision of being "renowned for social and environmental responsibility and action."

1. Alternative 1: Obtaining recognition from entire California State University System and media
 - a. Positives- Increase enrollment,
 - b. Negatives- No guarantee of gaining recognition.
2. Alternative 2: Develop infrastructure for Resource Recovery Station that can be used for other events.
 - a. Positives- Educational display that conveys the message of a zero waste philosophy and unites multiple features such as composting and recycling. Also achieves multiple objectives.
 - b. Negatives- Have to store RRS.
3. Alternative 3: Support Campus Recycling Program (CRP) obtaining a supply and program for reusable dishes and silverware to be used at events.
 - a. Positives- Encourages zero waste culture and ensures the ability to reduce waste at other events and future graduations

- b. Negatives-Requires approval and collaboration for dishwashing.

Goal 2: Lessen negative environmental and social impacts of Humboldt State University's graduation ceremony.

A. Objective: Reduce solid waste by 20 % the first year.

1. Alternative 1: Resource Recovery Station with Staff and display: Create Integrated **Resource Recovery Stations** (RRS) that include highly visible and accessible recycling, composting, landfill and educational components with volunteers/staff.
 - a. Refer to Goal 1, Objective B
2. Alternative 2. RRS without staff
 - a. Positives- Refer to Goal 1, Objective B
 - b. Negatives- Becomes less effective, loss of personal connections.
3. Alternative 3. RRS with Educational Display without staff
 - a. Positives- Informative and educational, visitors do not have to get involved. Makes it easier to recycle when process is in a large easy to understand display.
 - b. Negatives- Does not have a participatory aspect where visitor will be involved in the process of composting.
4. Alternative 4. RRS with paid staff or volunteers and without display
 - a. Positives- Paid staff are more reliable. Volunteers are free, increases community education and involvement, and dedicated to purpose.
 - b. Negatives- Paid staff cost money that is not there. Volunteers are less reliable and need to be recruited.

B. Objective: Increase recycling by 20 % the first year.

1. Alternative 1: Refer to Objective B, Alternative 1
2. Alternative 2: Signs encouraging recycling on bins and placed on entrances to event about Zero Waste philosophy and recycling.
 - a. Positives- Reminds attendees upon entrance, Point source polluter reminders are shown to be highly effective.
 - b. Negatives- Signs may be seen as a distraction from the event itself.

C. Objective: Reduce vehicles to event by 10% the first year.

1. Alternative 1: Cooperation with local hotels to utilize hotel shuttle buses as a service for the ceremonies.
 - a. Positives- less cars to event, saves gasoline, and reduces the traffic to event.
 - b. Negatives- Have to arrange with hotels, possibility of being expensive and not easy to coordinate time schedules.
2. Alternative 2: Use HSU Transportation funds to charter a bus. The bus will pick up visitors from "hot spots," much like an airport shuttle does.

- a. Positives- Refer to Objective D, Alternative 1.
 - b. Negatives- Need to have licensed HSU drivers.
3. Alternative 3: Create and/or utilize a ride share web based operation for visitors traveling longer distances. (i.e. www.alternetride.com, or Craig's list at <http://humboldt.craigslist.org/rid/>)
- a. Positives- More people per car equals less cars at event, socializing program that unites people under one conserving banner, inexpensive, and useful.
 - b. Negatives- potentially awkward situation for people, conflicting time schedules
4. Alternative 4: Post the bus route and parking instructions online
- a. Positives- Easy to do, available for people to see how they close they are to a pick up spot, provides information to event and where other items are located
 - b. Negatives- Few bad consequences
5. Alternative 5: Send out e-mails and construct a website about joining the cause; making the event an enjoyable experience that people would be honored to be a part of
- a. Positives- Very informative and motivational
 - b. Negatives- Involves a lot of Academic Computing time and resources and Needs approval of the ethics committee
6. Alternative 6: Biodiesel bus shuttle
- a. Positives- "Eco-friendly way to get people involved while reducing the amount of single occupant cars to event, by volunteer, conserves the natural resources
 - b. Negatives- Availability, funding, routes and reliability
7. Alternative 7: Alternative Transportation Club
- a. Positives- Whatever help they could give in aiding in the event is appreciated. They could help move supplies around campus without the use of cars and/or vans
 - b. Negatives- Reliability and ability to help move a mass of items is limited by numbers of volunteers and weight
8. Alternative 8: Have information about event in restaurants and hotels prior to commencement
- a. Positives- Gets the word out about the event prior to the actual graduation so that people will see it if they eat out before Saturday.
 - b. Negatives- Need restaurant approval and help
9. Alternative 9: Have ride share boards set up at local hotels
- a. Positives- Promotes the idea of carpooling, while bringing people together under one banner. This will introduces people to carpooling idea if they have never participated in it before. Ride sharing is more flexible as opposed to just a shuttle service, and it is more fuel and cost effective.
 - b. Negatives – Bulletin board uses paper, etc. Social agendas such as dinner and family gatherings can interfere. Some individuals who haven't used carpooling before might not use it again if they have a bad

experience. Participants have to rely on their drivers for timing – pick-up and drop off

D. Objective: Increase reuse of gowns by 25% the first year.

1. Alternative 1: Switch from buying one-time use-only gowns to rented gowns
 - a. Positives- 100% re-use, better quality cotton gowns, gowns have longer useful life, reduces waste. The company HSU currently buys its gowns from offers this service
 - b. Negatives- Significantly more expensive for students, people have not returned gowns in the past, heavier materials may use more fossil fuels to transport, cotton gown require student fittings, requiring more effort from students and staff, students may want to keep gowns. The social and environmental costs of gowns may still be high -the labor and environmental conditions of the gown manufacturing process is still unknown
2. Alternative 2: Increase current Campus Center for Appropriate Technology (CCAT) Gown Recycling Program
 - a. Positives- Using already existing program, bookstore supports it, no raises in student cost, raises awareness of CCAT, an organization with compatible related goals to zero waste graduation.
 - b. Negatives- Reuse is seen as a voluntary, exemplary action rather than a normal expectation. Graduates may want to keep gowns

E. Objective: Increase the amount of recycled and/or less harmful products to 20% the first year.

1. Alternative 1: Use biodegradable plates, cups, napkins, and silverware.
 - a. Positives- Easy to use, just like other paper or plastic products, demonstrates a transitional alternative to disposable, raises consciousness, has less cultural obstacles and requires less staffing than switching to reusable, educational opportunity about composting.
 - b. Negatives- High embedded energy costs, more money to obtain products, limited composting facilities
2. Alternative 2: Use reusable plates, cups, napkins, and silverware.
 - a. Positives- Reduces amount of resources used at events in the future, nicer looking
 - b. Negatives- Storage and initial investment
3. Alternative 3: Use educational displays about reduction, reuse and recycling.
 - a. Refer to Goal B, Objective A
4. Alternative 4: Use all post consumer waste paper (PCW) for graduation handbook
 - a. Positives- Reduces amount of trees used
 - b. Negatives- More expensive than other products
5. Alternative 5: Use all paper that can be recycled for graduation handbook.
 - a. Positives- Ensures the reduction of resources

- b. Negatives- Cannot use metallic ink already in use, there will need to be people and places to recycle books
- 6. Alternative 6: Using local food sources for concession stands during ceremony.
 - a. Positives- Uses less resources in transportation, promotes local economics
 - b. Negatives- More expensive. Competition amongst different groups competing for donations is a concern
- 7. Alternative 7: Use stores that promote better alternatives for the environment for Campus Bookstore purchases
 - a. Positives- Closes the loop on environmental purchases
 - b. Negatives- More expensive than traditional products, product availability

Goal 3: Provide education and increase awareness in an effort to mitigate negative environmental impacts.

A. Objective: Convey information to at least 75% of visitors.

- 1. Alternative 1. Provide information on website about Zero Waste and gown reuse program
 - a. Positives- Information that gives attendees an idea about Zero Waste.
 - b. Negatives- Website may not be accessed by all attending, time and cost of creating website
- 2. Alternative 2: Educational displays at the resource recovery stations.
 - a. Refer to Goal 2, Objective 1
- 3. Alternative 3: Volunteers educating the visitors visually and audibly.
 - a. Refer to Goal 2, Objective 1

B. Objective: Determine effectiveness of education post event

- 1. Alternative 1: Develop a brief survey and hand out to attendees after ceremony and reception
 - a. Positives- Immediate feedback about effectiveness of event
 - b. Negatives- Most people probably will not want to fill out survey at event, may be hard to organize, the response will only come from narrow window of people who are interested, increases waste
- 2. Alternative 2. Mail out a brief survey to attendees post event
 - a. Positives- People may give a more thorough response
 - b. Negatives- Many will not respond, will not remember details, will increase waste
- 3. Alternative 3: Have volunteers/staff ask random attendees questions about the effectiveness and satisfaction of Zero Waste event after the ceremony and reception
 - a. Positives- Immediate response, more organized, more response because of less effort by attendee, requires less paper
 - b. Negatives- Need staff, people may be in a rush, not interested

Goal 4: Ensure repeatable process for future graduation ceremonies.

A. Objective: Participation goal of 50% of all people attending commencement and/or receptions in zero waste activities.

1. Alternative 1: Make preannouncements before ceremony in the welcome.
 - a. Positives- quick, cheap, easy way to get message out
 - b. Negatives- easy to miss
2. Alternative 2: Mail information to families and friends about a zero waste graduation
 - a. Positives- Helps to inform family and friends of Zero Waste Event
 - b. Negatives- The use of materials and creation of waste
3. Alternative 3: The support of administration
 - a. Positives- With the help of the administration much more will be able to be accomplished
 - b. Negatives- None

Preferred Alternatives

1. Goal: Promote public involvement and awareness of zero waste philosophy.

A. Objective: Create an interest on campus with students and faculty on campus to demonstrate the importance of having a zero waste graduation event.

In order to most effectively promote the Zero Waste Graduation event and philosophy, we feel that incorporating all 4 of the proposed alternatives will provide for the best possible solution.

Aggregating groups on campus in order to network ideas, aid, and services will provide for more efficient services and volunteer work during the main event and future HSU events. With the multitude of environmental and social clubs that HSU is fortunate enough to have, uniting them under one main body will surely expedite needed goals and objectives. However, because we have multiple existing clubs and programs on campus with their own leadership and staff could present problems in job retention. Granted the clubs are made up of elected officers and are not on a paid wage, but some members of the campus programs are. Consolidating the groups should not lead to abolishment of preset titles; these members should still be in charge, or in the position to fulfill their current post.

The creation of informative brochures stating the objectives and the vision of Humboldt State University and the Zero Waste Graduation philosophy could clarify misunderstandings and aid in promoting the event. These brochures could easily be reproduced and edited for content as needed as well as furnished to outside agencies for promotion and media coverage. The idea of getting more information out to the public could result in positive gains not only in participation at the event, but also in terms of student enrollment and/or alumni spending.

Another benefit to this alternative is the most obscure; multiple templates have already been created ranging from flyer's to tri-fold front and back brochures by the Zero Waste Graduation Team. Negative aspects of the brochure and flyer alternative are obvious; paper usage will be high, and the rate

of reader retention will not be known. We could develop flyers to limit the amount of paper waste by using contact strips at the bottom of the flyer. This in turn will 5 contact strips per single sheet of paper. ?

The third alternative consists of coordinating meetings with strategic persons on campus (students and faculty). This will give us the opportunity to align ourselves for promoting a zero waste event. By utilizing the meetings to clearly convey our ideas it allows for efficient communication and knowledge dispersal. If notes were to be taken at the meetings, persons who could not attend due to scheduling conflicts could be informed of the issues and decisions made at said meetings. Scheduling conflicts will be an issue regardless of the ability of note takers and recorders; we feel that there would be no way to mitigate for this dilemma but to insist on the relevance of the Zero Waste Graduation.

Finally, we would like to hold an artistic event on campus to generate a symbol for the first ever Zero Waste Graduation at Humboldt State University. By creating a symbol we feel that it could further unite the graduating class much like the pledge does now. People can identify a symbol with a philosophy and thus act in accordance with waste reduction and becoming more socially aware of their actions. We recognize the difficulties of creating a symbol, but we also believe that waste generated from the campus contest could be mitigated if recycled paper was used, and all of the contestants work was to be displayed along a wall in the art building for a period of time. This could further aid in promoting the Zero Waste Graduation. We also feel that the symbol could be used in the local papers and or a press release to further spread the word about the event. Again, this could return as future enrollment and monetary gains.

We feel it important to include all of the proposed alternatives when deciding on an appropriate solution to our stated objectives.

B. Objective: Fulfilling Humboldt State University's vision of being "renowned for social and environmental responsibility and action."

Promoting Humboldt State University's (HSU) graduation as a zero waste event is the cohering core of all of our solutions to the problem of the high level of negative environmental impacts of HSU's graduation. A zero waste approach does more than minimize some the most egregious negative environmental impacts. It is a breakthrough strategy that "encompasses a 'whole system' approach to redesigning resource flows comprised of an underpinning philosophy, a clear vision, and a call to action – all based on the idea that we CAN eliminate waste" (Zero Waste New Zealand Trust, 2001). This approach challenges the very concept of waste as an inevitable outcome of any endeavor. Rather, zero waste philosophy refers to residual outcomes and potential resources. Waste, essentially, is not a product but a failure to adequately utilize our resources. A zero waste approach towards HSU's graduation would not only reduce the negative impacts of the ceremonies, but would be an exciting demonstration of leadership in environmental initiatives. This could increase the prestige of HSU as an institution at the forefront of sustainability.

If the conventional commercial paradigm can be imagined as a straight line of going from resource extraction, to production, to consumption, to waste management then zero waste can be thought of as a loop, similar to the recycling triangle. Zero waste requires us to switch from merely lessening waste through the 3 Rs (reduce, reuse, and recycle) to shifting the way we think about the products and processes that we use. Zero waste adds reexamination to the other Rs. This approach allows, and requires, a reexamination of the entire life cycle of products and processes of the event.

Considering entire life cycles of products includes their sources, their transportation, their durability, and their benignity, recyclability, and packaging. Considering sources may mean picking products made from recycled materials of products manufactured in an environmentally conscious manner. Considering transportation gives a preference to local products due to the considerable environmental costs of transit via fossil fuel powered vehicles. Durability means choosing higher quality items over those meant to be used briefly and thrown away. Benignity refers to picking products that are non toxic and can safely be

composted, such organic natural fiber products. Recyclables refers to items that are easily recycled. Diverting cardboard packaging to recycling efforts might mitigate waste. However, by switching the sources of products to ones with little or no packaging, or have packaging that has been recycled and is recyclable, would be aligned with an entire zero waste philosophy.

Promoting HSU's graduation as a zero waste event is also a way to showcase the unique praxis, combining theory and action, of environmental values here at HSU. It would be the first Zero Waste Graduation within California, and only the second Zero Waste Graduation ever. The first was College of the Atlantic, a small progressive school in Bar Harbor, Maine, who underwent a Zero Waste Graduation in 2005. According to Jean Sylvia at College of the Atlantic, full participation on all levels, from students to administration, was absolutely essential in pulling it off. Sylvia also notes that the enthusiasm can be contagious, and the press jumped on their graduation. College of the Atlantic is a small school, and their situation is not our situation. HSU will probably not be able to achieve their level of waste mitigation the first year. However, HSU can still be a groundbreaking example of what can be done on a larger institutional scale.

Showcasing HSU as a leader in sustainability can increase our prestige in the community and attract new students to help remedy declining enrollment. The active promotion is also a good venue for recruiting volunteers for the Zero Waste graduation. It may also have intrinsic educational value as people become more aware of zero waste. The promotion of the graduation ceremonies as a Zero Waste event requires the support of the administration and some working with the local media, both of which are vital to create the most successful event possible, in any case.

Some groundwork for this effort has already been laid. A sample press release has been written. KHSU has been contacted via email. We met with Sean Kern, the Public Relations person for the graduation, and the liaison for the natural resources graduation ceremony. Lisa Newcamp has created a website (www.humboldt.edu/~lcn4/zerowastegraduation.html) discussing many aspects

to a Zero Waste Graduation. Linking this website with the main HSU graduation resource page would lend an air of legitimacy to the effort, help educate people to minimize waste, and increase HSU's renown for "social and environmental responsibility and action". After the website is linked, other venues to pursue include media highly accessible to students (Lumberjack, KHSU), interested individuals (EFSWest listserve, EcoNews) and the greater community (North Coast Journal, the greater CSU information network) can be created. Through all of these endeavors, we can mitigate HSU's negative environmental impacts while increasing its prestige.

2. Goal: Lessen negative environmental and social impacts of Humboldt State University's graduation ceremony.

A. Objective: Reduce solid waste by 20 % the first year.

Resource Recovery Stations with staff and displays is our preferred alternative. As the purpose of the station is not solely to recover resources but also for education, it is important to have both staff and displays. Without these aspects, the station loses its educational value and can become confusing and underutilized.

The station would consist of bins for recycling of glass, plastic, aluminum, and a bin for composting. If we are able to implement reusable dishes and silverware, there will also be a bin for collecting these. At the station, there will be a volunteer on staff to direct guests as well as answer any questions. The Campus Recycling Program may be able to contribute volunteers as they have expressed an interest in such. There will also be volunteer recruiting in the weeks before the event and at the Graduation Fair. The option of having Boy Scouts staff the stations is also being investigated.

Informational displays on zero waste will be available at the stations as well. Campus Recycling has displays which would be available for use in the Zero Waste Graduation, or new ones may be created if funding is obtainable. These displays will present information about what can be recycled as well as zero waste principles.



Examples of successful Zero Waste/Resource Recovery Stations

Another alternative that we would prefer is to have pre-event education on zero waste principles available to those attending. This would give attendees an idea of what to expect at the event. If information is mailed to attendees before the event, details about Zero Waste could be added. A website has been created about Zero Waste Graduation, and we are attempting to link the site to the HSU Graduation Homepage. This would also provide pre-event education by maximizing existing resources without using paper. Perhaps the greatest amount of pre-event education will be provided by media sources.

For the receptions, it was a hard choice to make what kind of silver and plate ware to use. The options to choose from were biodegradable products, plastic or paper, and reusable. There were many pluses and minuses for each alternative. Here is the information and reasoning used to determine the preferred alternative.

There are many benefits to using biodegradable products. Since there are many websites offering biodegradable products, we chose www.treecycle.com because it had been recommended from another college that performed a No Waste Graduation. The products featured on the website are made from genetically modified organism (GMO) free wheat, sugar cane, and corn, and they have a shelf life of five years. The benefits to the environment are that they

reduce amounts of solid waste going into landfills and do not use any trees. Two sociological reasons for using biodegradable products are that they support alternative technology and they look and feel like plastic.

Biodegradable products appear at face value to be good for the environment, but there is not a lot of research evidence to support this. As biodegradable products were being investigated these questions were asked: Are the products coming from monoculture plants, GMO and any pesticide use? Are there high embedded energy costs in production? Do they really break down? What kind of review these products went through to become marketable to the public? A detailed search on the internet and on academic search engines provided little information about the process of manufacturing these products.

From the few articles available on biodegradable products, they portrayed a very skeptical approach to these products. First, on the American Society for Testing and Materials (ASTM) there were no guidelines found on biodegradable silver and plate ware. If these products are not being tested, what makes them so safe for the environment and humans? Second, an article written on culturechange.org "Plastics: Your Formidable Enemy" investigated the negative impacts created by biodegradable products. [Culturechange.org](http://culturechange.org) mentions another article from *Scientific American* stating that biological breakdown of these products releases carbon dioxide and methane that are known greenhouse gases. Another negative side effect is that fossil fuels are used to create products. According to *Scientific American's* article their most recent study found that making one kilogram of PHA, one type of plastic, from genetically modified corn plants would require about 300 percent more energy than the 29 mega joules needed to manufacture an equal amount of fossil fuel-based polyethylene plastic from plants.

Other arguments against using biodegradable products by engaging in agricultural strip mining for making biomass for plastics or alcohol fuels would further degrade land that is already losing topsoil at a rate hundreds of times faster than nature normally would allow. By promoting a mono-agriculture it severely limits biodiversity.

A larger issue to be addressed about biodegradable products is land management. Should food production take precedence over growing plastic to use at any convenience? Since this is a subjective opinion based question, it is impossible to have a right answer. *Hardly*

One logistical barrier to biodegradable products is the availability of a compost site. Campus Recycling Program (CRP) stated that they could only take as much as they could process. Also, since CRP is a small site, they would not be able to take all of the biodegradable waste generated. There is currently not a large scale compost facility in the Arcata area able to take food waste.

The benefits to using plastic and paper products are straightforward: cheap, easy to buy, can be in storage for long periods of time. The biggest advantage to using plastic or paper products is that they can be recycled. The negative aspects to using these manufactured goods are ^{that} they come from non-renewable sources, need input energy to produce an useable products, waste goes to landfill and transportation costs.

The benefits to using reusable products from glass, metal, and ceramic are a one time cost associated with buying products, looks more formal, and no waste generated from product use. The negative features of using reusable are logistical problems associated with their use. There has to be adequate facilities ^{to} wash dishes, sanitation and storage.

After the research and weighing out of alternatives was completed, we are of the opinion to use reusable products whenever possible. The Campus Recycling Program (CRP) is developing a system to lend out reusable plates, cups, and silverware. This is a realistic option because CRP will have storage and access to washing facilities. CRP is expected to launch this new addition sometime next semester.

In the case that CRP will not have this program available by graduation the second option recommended would be to use plastic or paper products that can be recycled. Paper products would be ideal for their ability to be composted. While using the Resource Recovery Stations the same effect of creating the intended awareness about waste use will still be achieved. Although

*Do white plates use chlorine bleach
If so, they may contain dioxins.*

biodegradable products are an alternative technology, they may not be the most appropriate. They help to relieve the problem of solid waste, but the manufacturing process uses far more fossil fuels in the final product than plastics. As sobering as our analyses were, we did not immediately assume that these plant-based technologies were doomed forever. If and when the technology can overcome environmental, technical and economic limitations they will be evaluated again. For now, reusable dishes are the best solution.

B. Objective: Increase recycling by 20 % the first year.

Refer to above section.

C. Objective: Reduce vehicles to event by 10% the first year.

The most important aspect to all of these alternatives is that it shows how Humboldt State University is trying to promote sound actions. This could lead to positive press and further the needed student enrollment. In order to meet the objective of reducing vehicles to the event we feel that a combination of alternatives could best resolve the problem. By insisting on multiple pathways for carpooling and alternative transit we can limit the number of cars present at the event and aid in the reduction of greenhouse gases and fuel consumption.

We have discussed eight possible alternatives and we feel that using all eight collectively could produce the results that best represents the zero waste philosophy. The alternatives are described in the objectives and solutions section of this document, but further examination of these alternatives can aid in explaining how their use could effectively produce the wanted results.

To begin, and order is really of no importance because all alternatives are somewhat critical, cooperation with local hotels to utilize hotel shuttle buses. By utilizing the shuttle buses as a service for the ceremonies the number of vehicles to the event will be reduced. There are obvious pros and cons about this alternative; but the pros could outweigh the cons. Secondly, arranging for HSU to use its transportation fund, as discussed with Stephen Sullivan, to charter a bus. The bus could pick up visitors from hotels and other designated locations

no verb

much like a shuttle bus at a large airport would. This could be expensive for the University, but it could also promote the event and give a motivating example of how Humboldt State University is reaching out and actively pursuing environmentally and socially beneficial actions.

Third, if Humboldt State could create or utilize a ride-sharing web based program for visitors and family members it could lessen the number of vehicles to the event and save fuel. This could be a logistical problem and might pose some social issues, but it is a proven system that has been used for past events. Another alternative could easily be done ^{since} the majority of the work is done already; post the bus route and the parking instructions online. The bus route is already posted on the website of Green Wheels, HSU's alternative transportation club. This easy alternative would make it easier for people to identify where they are in relation to a bus stop and allow for less traffic collection at the event.

A fifth alternative that should be considered is that of sending out e-mails and the construction of a website about "joining the cause." A website has already been produced for the event by Lisa Newcamp and this could be linked to the University Graduation website.

Getting people involved in the cause will be an important aspect of this philosophy, and if we make this an enjoyable experience for the participants and for their families, we feel there is no reason why a Zero Waste Graduation could not be implemented as a Humboldt State tradition.

The next two alternatives could be done with cooperation from Humboldt State University Clubs and past graduates. Greenwheels, the alternative transportation club has volunteered its time and pedal power to shuttle people and materials to and from the event. This could cut some of the transportation costs for the University as well as enabling people to see alternative transportation techniques in operation and freeing Humboldt State University staff for other ceremony related issues. The biodiesel bus could also aid in shuttling people around from local hotels and bus stops. Both of these alternatives have their problems as they are volunteer based and may not be as

Why is a biodiesel bus unreliable?

reliable as one could hope, but they are a viable alternative to solving some of the traffic related issues on campus during the graduation event.

With the help of local restaurants and possibly even a spot on KHSU or in the Lumberjack we could promote the event and inform people about the parking issues and how we are hoping that if many people as possible could carpool and/or utilize one of the provided shuttle services. The information would include statements about how it would be greatly appreciated and that they would be participating in the first ever Humboldt State Zero Waste Graduation, a philosophy directed toward lessening the negative environmental and social impacts associated with the graduation process.

Lastly, we feel that utilizing ride share boards at the hotels could greatly improve the use of carpools to the event. The benefits to ride share have been discussed previously, but to re-iterate they could aid in reducing fuel consumption, limit traffic congestion, and allow for extra parking. Risks involved with carpooling are generally social issues. Along with timing and making sure that participants will have a ride to and from the event, HSU will have to have a backup plan (shuttle service, or single bus charter) for those participants who are left behind. The social issues ~~include~~ could arise if participants are new to the process of carpooling.

With the use of these alternatives, or at least a majority of them, we feel that the issues associated with parking at the Humboldt State University Graduation could be mitigated.

D. Objective: Increase reuse of gowns by 25% the first year.

Several alternatives were discussed to mitigate the one-time use culture surrounding the graduation cap, gowns and hoods. These included switching suppliers to an environmentally friendly, fair trade company, switching from a purchase system to renting gowns, and eliminating gowns altogether. While the environmentally best alternative may be to transition away from buying gowns back to renting high quality, cotton gowns, the recommended alternative is increasing the efficacy of CCAT's existing gown reuse program.

Jennifer Swift at the HSU bookstore has been responsible for graduation cap and gowns at HSU for 18 years and provided significant amounts of information vital in making this recommendation. According to Swift, renting gowns would cost students approximately twice as much as the current gown purchase program. Also according to Swift, when HSU rented gowns there were many difficulties with the program. Non-return by students for long periods of time was a major problem. Indeed, the bookstore will still rent gown to professors who desire this service, and non-return by the small number of individuals who utilize this service is still a problem. This is particularly notable as the issue of students leaving during the summer, as a cause of non-return is presumably not an issue for professors, who tend to live in the region where they work. Also, the type of cotton gown available for rent by White Oak, the company HSU has used for some years, requires individual student fittings by bookstore staff. This causes significant staffing and logistical difficulties.

The Campus Center for Sustainability (CCAT) runs a gown reuse program where students may donate their used cap and gowns after the ceremony. Those gowns are stored by CCAT until the next year when the gowns are then available for rent by future graduates for a fee of \$10 dollars. The gown rental is a popular service and CCAT generally runs out. This program has the advantages in that the gown reuse program uses existing infrastructure, includes no additional charges to students, and is local.

Using a local program means that the rented gowns do not require transportation related environmental costs to come to HSU. The cotton rental gowns from Oak Hall are heavier than the polyester purchase gowns, and thus require more fossil fuels for transport each year. With wide educational encouragement increasing the numbers served by the gown reuse program, we can extend the useful life of the polyester gowns. While they are not high quality material, they can still be used many times. With the proper support this program can significantly reduce waste. Also, cotton itself has environmental costs including irrigation and the environmental affects of pesticides.

Research on the labor practices of Oak Hall did not yield any significant results. There were labor concerns about Jostens, a competing company. I was unable to find a single company offering graduation gowns, for purchase or rent, made from organic materials or offered by fair trade distributors. I did find one small school that contracted a small indigenous collective to make unique batik graduation gowns. However, they were expensive, different from conventional graduation gowns, and would face extremely significant cultural and bureaucratic hurdles before being accepted by HSU culture.

An alternative that was briefly considered and quickly disregarded was ceasing the custom of graduation gowns altogether. This would eliminate resource use and waste without causing any increase in student fees. However, this would eliminate the special feel of graduation, a major concern of Sean Kearns and us.

The best solutions for mitigating waste while fulfilling the needs of HSU seems to be increasing the use and efficacy of the CCAT gown reuse program. One way to increase awareness, and hopefully practice, is linking the zero waste website, the HSU graduation resource page, and CCAT's webpage. It is also a hope that by discussing these concerns with the bookstore, awareness on the part of the bookstore staff is increased. It does not seem unreasonable that this may increase the likelihood of frequent, clear communication to graduates about the CCAT gown reuse program. Also by increasing awareness of the zero waste graduation efforts in general, the specific objective of increasing the reuse of gowns may be realized.

E. Objective: Increase the amount of recycled and/or less harmful products to 20% the first year.

Using all post-consumer waste products will reduce the amount of trees used for paper and less harmful products to the environment. Post-consumer waste (PCW) is paper that has already been used and returned through a recycling program, thereby diverting it from a landfill or incinerator. It is usually de-inked and then processed to make new paper. Office paper waste makes up

the majority of post-consumer waste content that is used to make recycled copy and printing papers. According to Katherine Guerin, executive director of the Maine Resource Recovery Association, for every 1 ton of scrap paper we recycle we save: 17 trees, 4200 kilowatt hours of electricity, 7000 gallons of water, and 3 cubic yards of landfill space. In addition, 60 pounds of effluents are not emitted into the air. A good selling point is PCW is not more expensive than non-PCW. This is a very realistic alternative because according to an email from graphic services, HSU uses all PCW and soy based inks mandated by the administration.

As of right now there is a gold ink used in the ceremony leaflets that cannot be recycled. Switching to a recyclable ink may be easy because there are many websites devoted to alternative inks and paper. This would be an easy shift to make as it would not make a big difference in behaviors.

Another technique to reduction of harmful products to the environment would be to buy local. According to website Local Harvest, "we can only afford to do this now because of the artificially low energy prices that we currently enjoy, and by externalizing the environmental costs of such a wasteful food system. We do this also to the detriment of small farmers by subsidizing large scale, agribusiness-oriented agriculture with government handouts and artificially cheap energy." By using local products it will help preserve the environment, and strengthening your community by investing your food dollar close to home.

This may not be a realistic goal in all the receptions and concession stands. Not all food necessary for receptions is available to use. In this case, it is recommended to revise the menu in order to use local or seasonal products. The Volleyball Team Concession stand run by Sue Woodstra is already using donated local food. If all the receptions and one concession stand switched to using local products it would be a big step in the right direction of reducing resource use. Another aspect of concession stands is the dishes used. Reusable dishes would be the best alternative if possible. This is discussed further in Objective A and B of Goal 2.

In conclusion, it preferred alternative to reusable dishes, PCW paper, all inks that can be recycled, and local products.

3. Goal: Provide education and increase awareness in an effort to mitigate negative environmental impacts.

A. Objective: Convey information to at least 75% of visitors.

For this objective, we are recommending implementing all of our proposed alternatives. The website is already uploaded, but it is not yet linked to the HSU Graduation Home page. Part of the implementation strategy is to have the link in place once the authorization is given. The other part of implementation is to advertise the site to encourage people to visit. The site is designed to provide pre-event information.

To convey information to visitors during the event, the Resource Recovery Stations are designed to be interactive and informational. They will be placed in strategic locations to ensure a large percentage of visitors pass by and/or participate. Volunteers will be available to answer questions and direct guests.

B. Objective: Determine effectiveness of education post event

Our preferred alternative is to have volunteers ask random attendees about their perceived effectiveness of the event as well as overall satisfaction. It was determined that handing out surveys would not be as effective since people will be distracted and in a rush. If volunteers could ask a few quick questions, we would get immediate feedback with minimal effort from the attendees. The volunteers could ask people as they are leaving the ceremony and reception. There is a chance that the survey would be biased as the people who agree to answer questions are probably more interested in the Zero Waste aspect.

4. Goal: Ensure repeatable process for future graduation ceremonies.

A. Objective: Participation goal of 50% of all people attending commencement and/or receptions in zero waste activities.

When this project was first formulated for a senior project it was the intention that this Zero Waste Graduation Plan would serve as guide for future

projects. In order to be successful, having the support of the administration is crucial because creating an event that truly reflects Humboldt State's values will only be possible with the help of the people involved.

The more people that are included in the process means the more success we can have in education and outreach. Making preannouncements before the ceremony and mailing information to attendees are ways of creating a buzz to generate interest. All of the alternatives for this objective are recommended because if carried out right, they can only help.

Implementation Strategies

* Already been accomplished

1. Goal: Promote public involvement and awareness of zero waste philosophy.

A. Objective: Create an interest on campus with students and faculty on campus to demonstrate the importance of having a zero waste graduation event.

1. Talk with clubs and faculty on campus about graduation
 - a. We would like to establish an all encompassing group that contains all the sustainability related clubs on campus. By utilizing this group we could easily communicate our ideas to the existing clubs on campus. (For example: Associated Students, Green Campus, The Sustainability Club, and Green Wheels)*
 - b. Communicating with Green Wheels (formerly the Alternative Transportation Club) could help to provide transportation for the materials used during the ceremonies*
 - c. If we could get the Associated Students on board, along with certain members of the faculty, we feel that it would be easier to promote the zero waste graduation*
2. Distribute brochures to clubs that table on the quad (Appendix 1).
 - a. As discussed previously, brochures have already been made*
 - b. Promoting the event could be easy if these were utilized along with other media outlets
 - c. Utilizing the pre-existing clubs tables, the Zero Waste Graduation idea would be dispersed effectively to a mass of the students, faculty, and visitors
3. Use the Educational Summit as a preview of zero waste philosophy to generate a "buzz"
 - a. By implementing the zero waste philosophy at the Educational Summit, the zero waste project team will be able to establish where problems lie within the process
 - b. Working with Kristin Miller and the Bucket Brigade, the Zero Waste Graduation Project will gain insight as to how to run a zero waste event and proper utilization of volunteers*

B. Objective: Fulfilling Humboldt State University's vision of being "renowned for social and environmental responsibility and action."

1. Create an interest on campus with students and faculty on campus to demonstrate the importance of having a zero waste graduation event
2. Talk with clubs and faculty on campus about graduation to distribute brochures. For more information refer to Goal 2, Objective A

3. Use the Educational Summit as a preview of zero waste philosophy to generate a "buzz". For more information refer to Goal 2, Objective A

2. Goal: Lessen negative environmental and social impacts of Humboldt State University's graduation ceremony.

A. Objective: Reduce solid waste by 20 % the first year.

1. Get Approval for RRSs – Meeting with President in Jan 2006, Sean Kearns in Dec 2005
2. Recruit volunteers to staff the RRSs
 - a. Boy Scouts, CRP, and/or student volunteers- CRP already contributing volunteers, Green Wheels (formerly Alternative Transportation Club)
 - b. Meeting with Steve Sullivan to discuss Boy Scouts on November 30th, contact Regional Director to determine feasibility*
3. Collaborate with CRP for final RRS designs, construction of RRS – April 2006
4. Displays for RRS
 - a. Use of CRP displays or create new displays
 - i. Propose idea of construction of displays and station to Eric's class in the spring- February 2006
 - ii. Station can be stored at CRP to be used for other campus events
 - b. Create signage for "landfill" rather than garbage. – to be done in weeks before graduation with creation of RRS- April 2006
5. Finalize location of RRSs
 - a. Small RRS outside of Redwood Bowl, both entrances, and large RRS at reception in the Quad
 - b. Strategically placed in order to maximize use and minimize waste to landfill.- Meeting with CRP to determine optimal place-April 2006
6. Create a website that provides pre-event information- created by Lisa, uploaded November 1st
 - a. <http://www.humboldt.edu/~lcn4/zerowastegraduation.html>
7. If information is sent out to parents/students who will be attending graduation, attach information about the Zero Waste aspect.
8. Talk to HSU catering staff about reusable materials provided by CRP.
 - a. Contact person is Twyla Henderson
9. Talk to Volleyball team about concession stand products.*
 - a. Promote returning to the reusable cups that had previously been in use.
 - b. Contact person is Sue Woodstra

B. Objective: Increase recycling by 20 % the first year.

Refer to above strategies

C. Objective C: Reduce vehicles to event by 10% the first year.

1. Investigate possibility of using hotel shuttles and/ or creating ride share boards for hotel lobbies

- a. Can be accomplished by calling the hotels and arranging services or having a volunteer or Zero Waste Graduation staff design and set up ride share board with hotel approval
- 2. Talk with Stephen Sullivan about HSU chartering a bus.*
 - a. Establish feasibility for and utilize funds in order to charter the bus
 - b. Gather information about drivers, and any legal requirements
- 3. Possible utilization of the Biodiesel bus*
 - a. Gather information about availability and necessary legal requirements.
- 4. Talk with Stephen Sullivan about creating a web-based ride share program.*
 - a. If possible have web-based ride share portal available for event by March and running up until the event
- 5. Get the event parking information up on the web.
 - a. Stephen Sullivan of Parking has detailed information about the parking issues for the day of graduation
- 6. Getting parking information in digital form and up on the web in an easy to view all-inclusive site could help visitors (Appendix 1,2,3)
- 7. Talk to AS to get an e-mail sent out to graduates about the event and ways in which to get their families involved
- 8. Talk to Green Wheels (formerly Alternative Transportation Club) – see what they can provide in terms of volunteers and modes of transportation.*
- 9. Inquire with restaurants in the area – see if they would be willing to post event information on their tables.
- 10. Boy Scouts as possible volunteers for the event
 - a. This could be accomplished by speaking with the District Executive Mike Rhodes

D. Objective: Increase reuse of gowns by 25% the first year.

- 1. Create website with information on gown recycling*
- 2. Encourage Sean Kerns to Zero Waste Website to link to electronic source of general HSU graduation information
- 3. Transfer authority of website to CCAT
- 4. Collaborate with bookstore to ensure information on expectation of gown recycling is available there by knowledgeable staff
- 5. Encourage local media coverage promoting gown reuse program
- 6. Create highly visible signage for gown return and donation centers
- 7. Work with Sean Kerns to include information on gown reuse with other non-electronic graduation information sources
- 8. Recruit volunteers to facilitate gown donation on graduation day at gown return centers
- 9. Place gown donation centers in strategic location in collaboration with resource recovery stations
- 10. Recruit volunteers for Graduation Fair

E. Objective: Increase the amount of recycled and/or less harmful products to 20% the first year

1. Use Resource Recovery Stations to help guide participants. Refer to Goal 2, Objective A
2. Cost analysis of products to use for serving and eating food to provide more information about decisions for Volleyball* (Appendix 5)
3. Change the non-recyclable gold ink to a similar product that can be utilized.
 - a. Must have the support of Rollin Richmond to make a change
4. Persuade bookstore to use companies that are local, promote PCW paper and soy inks.

Goal: Provide education and increase awareness in an effort to mitigate negative environmental impacts.

A. Objective: Convey information to at least 75% of visitors

1. Work with CRP to develop educational displays for RRS. For more information Refer to Goal 2, Objective A
2. Make an announcement before the ceremony begins
3. Distribute a press release in the months before the ceremony (Appendix 6)
4. Write an Op-ed piece for the Lumberjack, have circulated in April
5. Include fliers about zero waste event in packet going to graduates and family (Appendix 7).

B. Objective: Determine effectiveness of education post event.

1. Use the existing volunteers to survey attendees about effectiveness and satisfaction

Goal: Ensure repeatable process for future graduation ceremonies.

A. Objective: Participation goal of 50% of all people attending commencement and/or receptions in zero waste activities.

1. Talk to Eric Rofes' class, Community Action, for delegating specific projects that need to be done
2. Have meeting with Rollin Richmond to gain support
 - a. First meeting will be Rollin Richmond's secretary, Denise Helwig who is sympathetic to a zero waste graduation.

Monitoring and Evaluation

The monitoring and evaluation plan should include methods to determine if we have met our objectives.

- Create an interest on campus with students and faculty on campus to demonstrate the importance of having a zero waste graduation event.
 - a. Option A: It is difficult to determine quantitatively the interest level of students and faculty on campus. This will be inadvertently answered by the level of participation on the day of event.
 - b. Option B: Create a survey that quantitatively determines an interest level pre-event.
- Fulfilling Humboldt State University's vision of being "renowned for social and environmental responsibility and action."
 - a. Create a post event survey that asks participants how well this vision was met. This survey could be administered verbally at event by volunteers.
 - b. Monitor how many media outlets cover the event, (i.e. radio, internet, newspapers)
 - c. Either email a survey to, or conduct an orchestrated discussion with key administrators to determine how well they feel this vision was met.
- Reduce solid waste by 20 % the first year.
 - a. Collect data from previous graduation or from an event of similar magnitude to compare to the 2006 Commencement.
- Increase recycling by 20 % the first year.
 - a. Collect data from previous graduation or from an event of similar magnitude to compare to the 2006 Commencement.
- Reduce vehicles to event by 10% the first year.
 - a. There are an estimated 500 spaces for cars on campus. Our goal would be to decrease this number by around 50 cars. This would necessitate volunteers to count cars on day of event, which may not be feasible.
- Increase reuse of gowns by 25% the first year.
 - a. Count number of gowns returned to the CCAT reuse program, using an estimate from spring 2005 as a baseline of comparison.
- Increase the amount of recycled and/or less harmful products to 20% the first year
 - a. Compare products purchased in previous year to 2006 products.
- Convey information to at least 75% of visitors
 - a. Volunteers at RRS counting visitors who are utilizing station, asking questions, examining displays, etc.
- Determine effectiveness of education post event
 - a. Have volunteers ask random attendees about effectiveness of event and overall satisfaction

- Participation goal of 50% of all people attending commencement and/or receptions in zero waste activities.
 - a. Volunteers at RRS counting visitors who are utilizing station, asking questions, examining displays, etc.

Personal Logs

Tyler Barns

September

- 09/12/2005: Team meeting; brainstormed ideas for zero waste graduation event
 - 2 hours
- 09/14/2005: Team meeting; brainstormed ideas for zero waste event and arranged meeting with Barbara Duca and Sean Kearns
 - 2 hours
- 09/19/2005: Team meeting; preparing for meeting and meeting with Barbara and Sean
 - 2.5 hours
- 09/21/2005: Team meeting to discuss future plans
 - 2 hours
 - Individual time- working on flyers and zero waste brochures
 - 4 hours
- 09/26/2005: Team meeting – 3 hours
 - E-mail to Hugh Dalton
 - E-mail to Stephen Sullivan
 - E-mail to Eric Rofes
 - Individual time – working on e-mails and zero waste flyers- 1 hour
- 09/28/2005: Team meeting- 2 hours
 - E-mail to Eric Rofes
 - E-mail to Roz
- 10/02/2005: E-mail to Lisa
- 10/03/2005: Team meeting- 2 hours
 - E-mail to Eric Rofes
- 10/4/2005: E-mail to Eric Rofes
 - Individual time – 3 hours; working on flyers and Zero Waste Graduation Document
 - E-mail to Eric Rofes, Roz, Lisa, Stephen Sullivan
- 10/05/2005: Team meeting – 2 hours
 - E-mail to Lisa, Stephan Sullivan
- 10/08/2005: E-mail to Stephan Sullivan and Lisa
- 10/10/2005: Team meeting- 30 min
 - Individual time – 1 hour working on Zero Waste Graduation Document
- 10/11/2005: E-mail to Roz
- 10/12/2005: Team meeting- 3 hours
 - E-mails to Stephen Sullivan and Shaina
- 10/15/2005: E-mail to Lisa
- 10/17/2005: Team meeting – 3 hours

- 10/18/2005: E-mail to Roz
- 10/19/2005: Team meeting – 2 hours
 - E-mail to Lisa
 - E-mail to Mathew Brunner
- 10/22/2005: E-mails to Roz
 - Individual time- 2 hour for Zero Waste Graduation Documentation
- 10/23/2005: E-mail to Lisa
- 10/24/2005: Team meeting – 1.5 hours
 - E-mails to Lisa
- 10/26/2005: Team meeting – 2 hours
- 10/27/2005: E-mail to Shaina
- 10/30/2005: E-mail to Roz
- 10/31/2005: Team meeting – 2.5 hours
 - E-mail to Shaina
- 11/01/2005: E-mails to Eric Rofes, Roz, and Lisa
- 11/02/2005: Team meeting – 3 hours
- 11/07/2005: Team meeting – 2 hours
 - E-mails to Stephan Sullivan, Eric Rofes, and Lisa
- 11/09/2005: Team meeting – 3 hours
- 11/14/2005: Team meeting – 2 hours
- 11/16/2005: Team meeting - 30 minutes
 - Individual time- 3 hours; document
- 11/17/2005: E-mail to Lisa
- 11/18/2005: E-mail to Lisa, Roz
- 11/21/2005: Individual Time- 4 hours
- 11/23/2005: Individual Time - 3 hours
 - E-mails to Roz
- 11/27/2005: E-mails to Roz, Lisa, Stephan Sullivan
- 11/28/2005: Team meeting – 2 hours
 - E-mails to Lisa, Stephan Sullivan
- 11/29/2005: E-mails to Lisa
- 11/30/2005: Team meeting – 1.5 minutes
 - E-mails to Roz
- 12/01/2005: Individual time – 3 hours
- 12/02/2005: Individual time – 2 hours
- 12/03/2005: Individual time – 30 minutes
- 12/05/2005: Team meeting – 4 hours
 - Individual time – 6 hours

Total Time: 84 hours

Rosalind Litzky

- September 12- 2 hour brainstorming with group, delegating, 30 min. clubs sites, forwarding emails
- September 8- Internet research- 1 hour
- September 14- 1 hour discussion with group
- September 19- 30 min meeting with group, 1.5 hour meeting with Sean Kearns & Barbara Duca
- September 21- 2 hour group meeting, discussion, internet research 1 hour
- September 26- 1 hour group meeting, discussion
- September 27- writing down thoughts about problem back round- 1.5 hours
- September 28- 2 hours group meeting, email- 30 minutes

September Total- 13.5

- October 2- 1 hour meeting at Gist Hall working on problem statement/background
- October 3- 2 hour meeting group meeting
- October 5- 30 min. meeting with group, 1 hour meeting with Eric Rofes and Christine Miller, 30 min. working on goals and objectives
- Informal discussion with April from CRP- 30 minutes
- October 9- 1 hour meeting at Gist Hall working on goals and objectives
- October 10- 1 hour meeting with group, 2 hours working on website, email 30 minutes
- October 11- Email 30 minutes
- October 12- 30 min meeting with CRP, 1 hour meeting with Steve Sullivan, 30 min meeting with AS
- October 13- 1 hour Internet Research
- October 16- 1 hour Brainstorm solutions, 1 hour website
- October 17- 2 hour meeting with group, solutions
- October 19- 2 hour meeting with group, solutions and alternatives synthesis
- October 23- 1 hour worked on solutions individually
- October 24- 1 hour internet and email, 1 hour meeting with group discussing progress
- October 26- 2 hour meeting with group, informal meeting with CRP- 30 minutes
- October 30- Research solutions, 1 hour
- October 31- 30 min group meeting, 30 min. website uploaded, 1 hour implementation strategies

October Total- 28 hours

- November 2- 2 hour group meeting, implementation strategies due
- November 6- Internet Research- 1 hour
- November 7- 2 hour group meeting
- November 9- 3 hour group meeting
- November 10- 1 hour Internet Research

- November 12- Email- 30 minutes
- November 13- Internet research 1 hour, attended and volunteered at Zero Waste Event Dinner- 3 hours
- November 14- 2 hour group meeting, monitoring and evaluation plan, email 30 minutes
- November 15- Internet research- 2 hours
- November 21- Research biodegradable- 3 hours
- November 22- Worked on Implantation Strategies and Recommended Alternatives- 3 hours, worked on flyers- 2 hours
- November 25- Email 1 hour
- November 27- Preferred alternative section, 2 hours
- November 28- 2 hour group meeting, worked on flyers- 2 hours
- November 30- Group meeting- 2 hours

November Total- 33 hours

- December 3- Email 1 hour, 2 hours formatting
- December 4- General work- 4 hours
- December 5- 3 hour group meeting, general work 2 hours
- December 6- 2 hours, typed personal log, worked on preferred alternatives, 2 hours formatting, 2 hours general

December Total- 18 hours

Total- 92.5

Shaina Meiners

September

- 09/12/2005: Team meeting; brainstormed ideas for zero waste graduation event
 - 2 hours
- 09/14/2005: Team meeting; brainstormed ideas for zero waste event and arranged meeting with Barbara Duca and Sean Kearns - 2 hours
 - Individual Work/ email 2 hours
- 09/19/2005: Team meeting; preparing for meeting and meeting with Barbara and Sean - 2.5 hours
- 09/21/2005: Team meeting to discuss problem statement - 2 hours
- 09/23/2005: Discussed CCAT funding opportunities with Patrick - .5 hours
 - .5 hours
- 9/25/2005: Email, revision, research
 - 2 hours
- 09/26/2005: Team meeting – 2 hours
 - Research -1 hour
- 09/28/2005: Team meeting- 2 hours
- 10/02/2005: Research/ email 2 hours
- 10/03/2005: Team meeting- 2 hours
 - E-mail / research -1 hour

- 10/05/2005: Team meeting – 2 hours
 - Research correspondence 1 hour
- 10/10/2005: Team meeting- .5 hours
 - Individual time: 1 hour
- 10/11/2005: E-mail
- 10/12/2005: Team meeting- 3 hours
- 10/17/2005: Team meeting – 2 hours
- 10/18/2005: E-mail
- 10/19/2005: Team meeting – 2 hours
 - E-mail/ Individual Work 1 hour
- 10/20/2005: Individual Work/ 3 hours
- 10/22/2005: E-mails/ Individual Work- 1 hour
- 10/23/2005: E-mail/ Individual Work 1 hour
- 10/24/2005: Team meeting – 1.5 hours
 - E-mail/ 1 hour
- 10/26/2005: Team meeting – 2 hours
 - Individual Work - 1 hour
 - Attended Alternative Transportation Club Meeting, Network: 1 hour
- 10/27/2005: Individual Work and Correspondence: 2 hour
- 10/29/2005: Attended meeting of alliance of campus environmental and social justice clubs: 1 hour
- 10/30/2005: E-mail
- 10/31/2005: Team meeting – 2.5 hours
- 11/01/2005: Individual Work - 1 hour
- 11/07/2005: Team meeting – 2 hours
 - Individual Work/writing/editing - 1 hour
- 11/09/2005: Team meeting – 3 hours
- 11/14/2005: Team meeting – 2 hours
- 11/16/2005: Team meeting - .5 hours
 - Individual time/research/email/editing- 2 hours
- 11/18/2005: Individual Work - 2 hours
- 11/21/2005: Individual Work/ writing- 3
- 11/24/2005: Individual Work - 1 hour
- 11/28/2005: Team meeting – 2 hours
 - Research
- 11/29/2005: Individual Work - 3 hours
- 11/30/2005: Team meeting – .5 hours
 - Individual work 2 hours
- 12/01/2005: Individual Work/power point/ preferred alternative – 3 hours
- 12/02/2005: Individual Work/writing/editing – 3 hours
- 12/03/2005: Individual Work – 4 hour
- 12/05/2005: Team meeting – 3 hours
 - Individual time – 3 hours
- 12/06/2005: Individual Work – 6 hours

Lisa Newcamp

- September 7- 1 hour spent online, HSU Graduation site, Zero Waste sites
- September 12- 30 min. emails, online, 2 hour brainstorming with group, delegating, 30 min. clubs sites, forwarding emails
- September 14- 1 hour discussion with group, 30 min. response to emails
- September 19- 30 min meeting with group, 1.5 hour meeting with Sean Kearns & Barbara Duca
- September 21- 2 hour group meeting, discussion
- September 26- 1 hour group meeting, discussion
- September 28- 2 hours research for website, 1 hour beginning site, 2 hours group meeting
- October 2- 1 hour meeting at Gist Hall working on problem statement/background, 1 hour individual research
- October 3- 2 hour meeting group meeting
- October 5- 30 min. meeting with group, 1 hour meeting with Eric Rofes and Christine Miller, 30 min. working on goals and objectives
- October 9- 1 hour meeting at Gist Hall working on goals and objectives
- October 10- 1 hour meeting with group, 2 hours working on website
- October 12- 30 min meeting with CRP, 1 hour meeting with Steve Sullivan, 30 min meeting with AS
- October 16- 1 hour Brainstorm solutions, 1 hour website
- October 17- 2 hour meeting with group, solutions
- October 19- 2 hour meeting with group, solutions and alternatives synthesis
- October 23- 1 hour worked on solutions individually
- October 24- 30 min emailing CCAT, email response, 1 hour meeting with group discussing progress
- October 25- 2 hours website
- October 26- 2 hours meeting with group
- October 30- Research solutions, 1 hour
- October 31- 30 min group meeting, 1 hour website uploaded, 1 hour implementation strategies
- November 2- 2 hours group meeting, implementation strategies due
- November 4- 2 hours revised implementation strategies
- November 7- 2 hours group meeting, 1.5 hours individual work
- November 9- 3 hours group meeting, 2.5 hours individual work
- November 14- 2 hours group meeting, monitoring and evaluation plan, 1 hour revisions, email Sue Woodstra
- November 18- 1 hour revised website uploaded, internet research 1 hour
- November 21- Worked on calendars 1 hour, worked on document 1 hour
- November 27- Preferred alternative section, 2 hours
- November 28- 2 hours group meeting, 1 hour internet/emails
- November 30- 30 min. group meeting, 1 hour work on document

- December 3-1 hour, thank you cards and Staples for recycled paper, 2 hours finalize website
- December 5- 3 hour group meeting
- December 6- 3 hours, typed personal log, worked on preferred alternatives, group meeting at 5 pm for 2 hours

Total hours: ~ 89 hours

Correspondences

From : Sean Kearns <kearns@humboldt.edu>
Sent : Monday, September 12, 2005 6:40 PM
To : lcn4@humboldt.edu
CC : duca@humboldt.edu
Subject : Re: Graduation 2006

Lisa,
Thank you for your note. I coordinate the Commencement ceremonies at HSU and would be very interested to hear more about your goals and offer assistance where I can. I will be out of town Monday, Sept. 26, through Monday, Oct. 3. However, I can be available next week or after I return. Also, I would like to make sure that Barb Duca of the CNRS dean's office is included in the discussions. She has long been the CNRS Commencement representative, and she likely understands better than I do what opportunities and limitations may exist. I'm copying her on this note.

Sean

At 11:19 AM 9/12/2005, you wrote:

To whom it may concern:
My name is Lisa Newcamp and I am currently enrolled in ENV5 411, Sustainable Campus. As our semester project, we are considering the implementation of a "greener" graduation ceremony. Specifically, we are interested in creating a low-waste, low-energy graduation for the College of Natural Resources and Sciences. Before we begin, we would like to meet with those currently involved in the organization of the commencement ceremony in order to receive input on the feasibility of such a project. We hope to set up a meeting in the near future. Our class meets on Monday and Wednesday from 2-4:20, so within that time frame is most ideal. We appreciate your time and look forward to hearing from you.
Thank you, Lisa Newcamp

Sean J. Kearns

Senior Strategic Communications Officer/Public Information Officer
Humboldt State University
Arcata, CA 95521
kearns@humboldt.edu, 707-826-5151

From : Barbara Duca <duca@humboldt.edu>
Sent : Monday, September 12, 2005 7:22 PM
To : Sean Kearns <kearns@humboldt.edu>, lcn4@humboldt.edu
CC : duca@humboldt.edu
Subject : Re: Graduation 2006

Hi,

I would be happy to meet with you both; however, I can't imagine a more low-energy graduation. Commencement is held outside (no lights) -- the only energy used is for the PA system. There is the gas for shuttling the disabled, elderly folks, but that's minimal. Graduates can donate their "robes" to CCAT, who has them available to resuse the next year for students. Most students, however, take their robes with them.

My part of commencement focuses on getting the students and faculty organized for an orderly march to and seating at the ceremonies. For the hour or so that I'm in the West Gym getting folks in line, perhaps there is just a small grocery bag of trash produced. I imagine that most of the trash is produced by the concessions. Just a few things to think about before we meet. My schedule is usually pretty open, so just let me know.

Thanks.

Barbara Duca, Administrative Analyst/Specialist
College of Natural Resources and Sciences
Humboldt State University
Arcata, CA 95521-8299
(707) 826-5826 -- Phone
(707) 826-3562 -- FAX
duca@humboldt.edu

Date:
Mon, 28 Nov 2005 1:58 PM
From:
michael@fairchance.us
To:
"Shaina Meiners" <treehugger@warpmail.net>
Subject:
RE: Zero Waste Graduation

shaina,

i will see if i can hook you up with a student reporter for KHSU, you will hear from me soon.

michael

----- Original Message -----
Subject: Zero Waste Graduation
From: "Shaina Meiners" <treehugger@warpmail.net>
Date: Sun, November 27, 2005 11:47 am
To: michael@fairchance.us

Hi, My name is Shaina Meiners, and I got your email address from Brock Nedland. I am part of the Zero Waste Graduation Task Force. Our senior project for our Sustainable Campus class, with Dick Hansis, is to make our commencement ceremonies more aligned with values here at Humboldt through making it more sustainable by decreasing and diverting waste. We are working on such areas as shifting away from disposable eating utensils and plates, increasing re-use of graduation gowns, increasing carpooling and public transit use, and composting. As part of our plan this semester, we are including ways to increase awareness on campus and in the community, such as through local media like KHSU. I was wondering what guidelines, air-time, et cetera was available appropriate for student endeavors, unaffiliated with a club, such as this. In other words, what venues would be available to get the word out through KHSU this spring? Would it be limited to announcements as part of a community calendar, or would one of us possibly be able to give a short spiel one of the programs, or what? I appreciate any information you could give me as we are trying to finalize our proposal for our presentation of our project, which is limited to the fall semester. Thank you in advance.

-Shaina Meiners

--

Shaina Meiners
treehugger@warpmail.net

--

<http://www.fastmail.fm> - Faster than the air-speed velocity of an unladen european swallow

Return

Date:

Mon, 24 Oct 2005 6:54 AM

From:

"Jean T. Sylvia" <jsylvia@coa.edu>

To: treehugger@warpmail.net

Subject: Re: Fwd: zero waste graduation

Shaina,

I do recommend the materials from treecycle. We used the sugar cane fiber plates and cups as well as the corn cups and utensils. They compost very well in our compost pile and in our green cones. Do keep in mind that they are costly compared to regular paper plates and cups. Actually, since you guys are in California, you should also check another company that we found that carries some of these products. They are located in Los Gatos. You can go to the following website to check them out:

<http://shop.store.yahoo.com/greeneearthofficesupply/kitsup.html>

Good luck and keep in touch.
Jean

Jean Sylvia
Asst to the Director, Blum Gallery/Purchasing Mgr.
College of the Atlantic
105 Eden St
Bar Harbor, ME 04609
jsylvia@coa.edu
* tel: 207-288-5015 ext 302
* fax: 207-288-3780

"Shaina Meiners" <treehugger@warpmail.net 10/22/2005 3:05:59 PM

Thank you very much for your quick and detailed response! It is extremely inspiring as much as anything else, just as we (the four people working on this project) were starting to feel a little overwhelmed. And we had not even considered the separation rope! You guys have actually already been useful. When we meet with officials we are able to point to you and say it is possible. Good job with the ripple starting, I will let you know what becomes of our efforts. Also, would you recommend the compostable materials you used from treecycle?
-Shaina

On Thu, 20 Oct 2005 11:45:38 -0400, "Jean T. Sylvia" <jsylvia@coa.edu> said:
Hi Shaina,

Your e-mail was forwarded to me today by our admissions office. My name is Jean Sylvia, Purchasing Manager at COA and I was on the committee that organized the zero waste graduation. We first met in June 2004 to plan the 2005 zero waste graduation. The idea was conceived by the school's director of public safety, Millard Dority, after he visited a town in Nova Scotia that tried to go waste free. Since all that we do here at COA revolves around protecting the environment and sustainability, this was a natural segue for us. We only give one degree at COA - a BS in Human Ecology. Ours is a very small school - 270 students and about 100 staff and faculty, so when an idea like this develops, it is something that the entire community embraces. Our committee included staff from buildings and grounds, public safety, the kitchen, our special events coordinator and purchasing. Once school

started, we enlisted the help of some student members of CCS (Campus Committee on Sustainability) and that is when the idea really took off.

The idea developed this way : At the time of graduation, there would be no dumpsters for students to use when they moved out of their dorms and garbage cans would be banned from move-out time through all graduation events. No trash receptacles, because there would be no trash! Everything that we used for the ceremony and the accompanying events, from biodegradable cutlery, plates and cups (www.treecycle.com) to the planned kiwi vine ropes to separate the 55 graduates from their parents (a rainy spring forced us to revisit this plan), would be recycled or composted, as would all waste generated by guests and students moving out. Everything that could not be recycled was used in a sculpture that students, staff and some guests created (she was quite lovely!) As the students moved out of their dorms, they were asked to donate their old clothes to a local charity and old appliances and other reusable items to the college so that they could be sold or given to students in the fall who were setting up apartments. Students staying in the area for the summer were the beneficiaries of 1/2 empty bottles of shampoo, ketchup, etc. As Millard stated, " Our main goal is to reuse the materials as much as possible, and our other goal is to make people realize the connections between what you purchase and what you throw away." We also cut down a great deal on the amount of food that we served at graduation, which in the past had always generated a great deal of waste. The kitchen asked suppliers - many of them small organic outlets and farms - to deliver produce in recyclable containers or to cut down on packaging materials. The distributors were great. In fact, some of the salesmen were so excited about the idea that they drove their produce to us (some a two hour drive) in their own vehicles so that they could return the produce containers to their suppliers. We had receptacles strategically placed around campus for people to toss their recyclable containers and others for the biodegradable items (food, cutlery, plates and cups). All the biodegradable items were emptied into our compost piles near our community garden. These piles are now generating wonderful organic compost for our community gardens and Beech Hill Farm, the organic farm owned by the college which produces much of the fresh produce that we serve in our cafeteria. All leftover food was taken to the local food kitchen, or frozen and served at a later date to staff and summer program participants.

None of this would have been possible without the commitment of our community: the president, trustees, staff, faculty, students and the guests who attended graduation. We are so fortunate to live on one of the most beautiful islands in the world (Mount Desert Island) and anyone that comes in contact with this place wants to protect it. Most

amazing were our students - many of them volunteering, while wearing their 100% organic cotton zero-waste graduation t-shirts, to help with the cleanup of the dorms and to educate visitors of the why, where and how of zero waste. The excitement was contagious and the media was all over this one - another good thing to think about if you want success.

We are already talking about how to make this year even better - primarily by educating staff and students that what they purchase today may become an issue when we clean out the dorms in June. It is really a matter of making people more conscientious about their consumption. In other words, we are trying to think zero-waste everyday.

If you would like to speak to some of the students who were key to the success of our zero waste graduation, you can contact either Kate Tompkins - ktompkins@coa.edu or John Deans jdeans@coa.edu .

Sorry that this e-mail is so lengthy, but all of us are proud of what we started and excited to know that there are so many others who think like we do and want to preserve their own little corner of the world.

Good luck and stay in touch.

admissions inquiry 10/20/2005 8:28:32 AM

Jean Sylvia
Asst to the Director, Blum Gallery/Purchasing Mgr.
College of the Atlantic
105 Eden St
Bar Harbor, ME 04609
jsylvia@coa.edu
* tel: 207-288-5015 ext 302
* fax: 207-288-3780

"Shaina Meiners" <treehugger@warpmail.net 10/19/2005 4:41:15 PM

Hello, my name is Shaina Meiners and I am a senior environmental sciences major at Humboldt State University in Arcata California. As part of a capstone class entitled sustainable campus, I am engaged with others trying to create a zero waste graduation ceremony like you have been succesfull in

instituting. We have been meeting with people engaged in all aspects of the graduation, and most have been supportive. I would appreciate any suggestions anyone has from your experience in doing the first of this. I am curious how the initiative for creating this came about at your school, also. Thank you in advance.

Sincerely,
Shaina Meiners

--

Shaina Meiners
treehugger@warpmail.net

Date:

Fri, 23 Sep 2005 3:38 PM

From: "Noah Schillo" <nschillo01@yahoo.com>

To: treehugger@warpmail.net

Subject: green grad

Hey hey. I'm on AS and we definitely want to help with your ambitions. I'd love to see all that stuff happen. Like, why shouldn't be already right? I think SCTF and Green Campus Program can help too. Sustainable Entrupeners (sp?) Network for the selling stuff. So those are great contacts for you to make also. Come on by AS anytime to talk to me or any of us. Have a great wkend, enjoy the sun. Thanks so much for your activism!

Noah

[Return](#)

Date: Wed, 26 Oct 2005 11:11 AM

From: brandon21@cox.net

To: treehugger@warpmail.net

Subject: zero waste at graduation

Shaina,

Hi! I'm the Associated Students liason to the Graduate Pledge Alliance. I'd like to talk to you about your ideas for this year's graduation ceremony. Please contact me at your earliest convenience. Thanks!

Brandon Hemenway

831-917-1053

Office hours: 10am-12pm Wednesdays

Sources

Kravetz, Joyce. *Buying Postconsumer Recycled Products Saves More Than Trees*. <http://www.newleafpaper.com/terminology.html>

S. N. Swain¹, S. M. Biswal¹, P. K. Nanda¹ and Padma L. Nayak¹ Biodegradable Soy-Based Plastics: Opportunities and Challenges. Biodegradable Polymer Research Laboratory, Department of Chemistry, Ravenshaw College, Cuttlack-753003, India.

How Green are Green Plastics? Scientific American Aug00

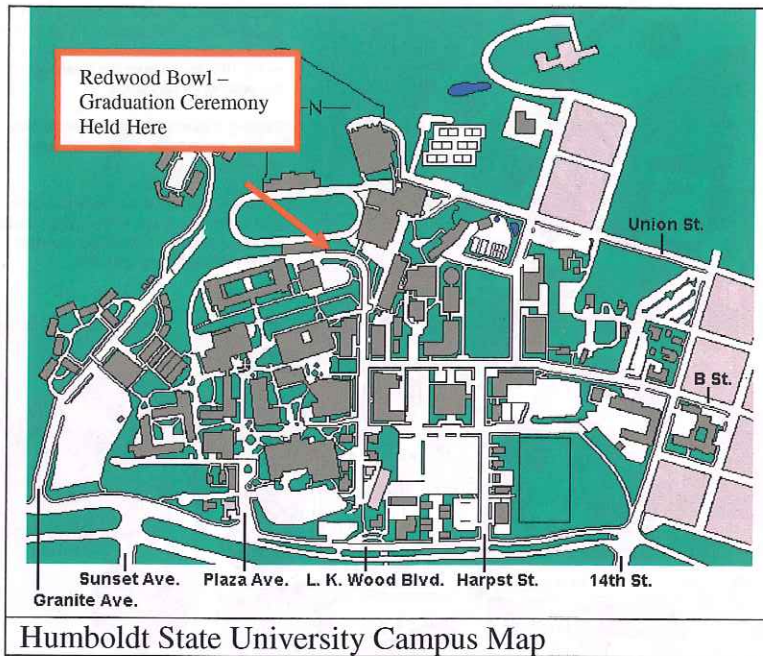
Culture Change Article. *Questioning exposure, recycling, biodegradability, alternatives Plastics: Your Formidable Enemy*. http://www.culturechange.org/e-letter-plastics_enemy.html

Local Harvest. *Why Buy Local*. <http://www.localharvest.org/>

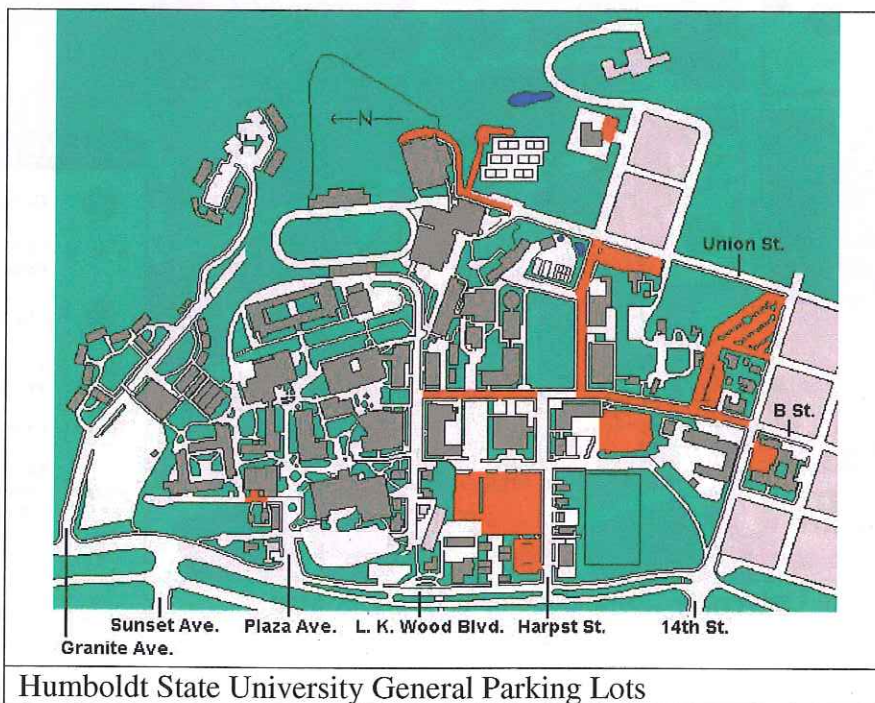
Zero Waste New Zealand Trust: *The End of Waste- Zero Waste by 2020*
Takapuna, Auckland, New Zealand P.O. Box 33 1695. May 2001
www.zerowaste.co.nz

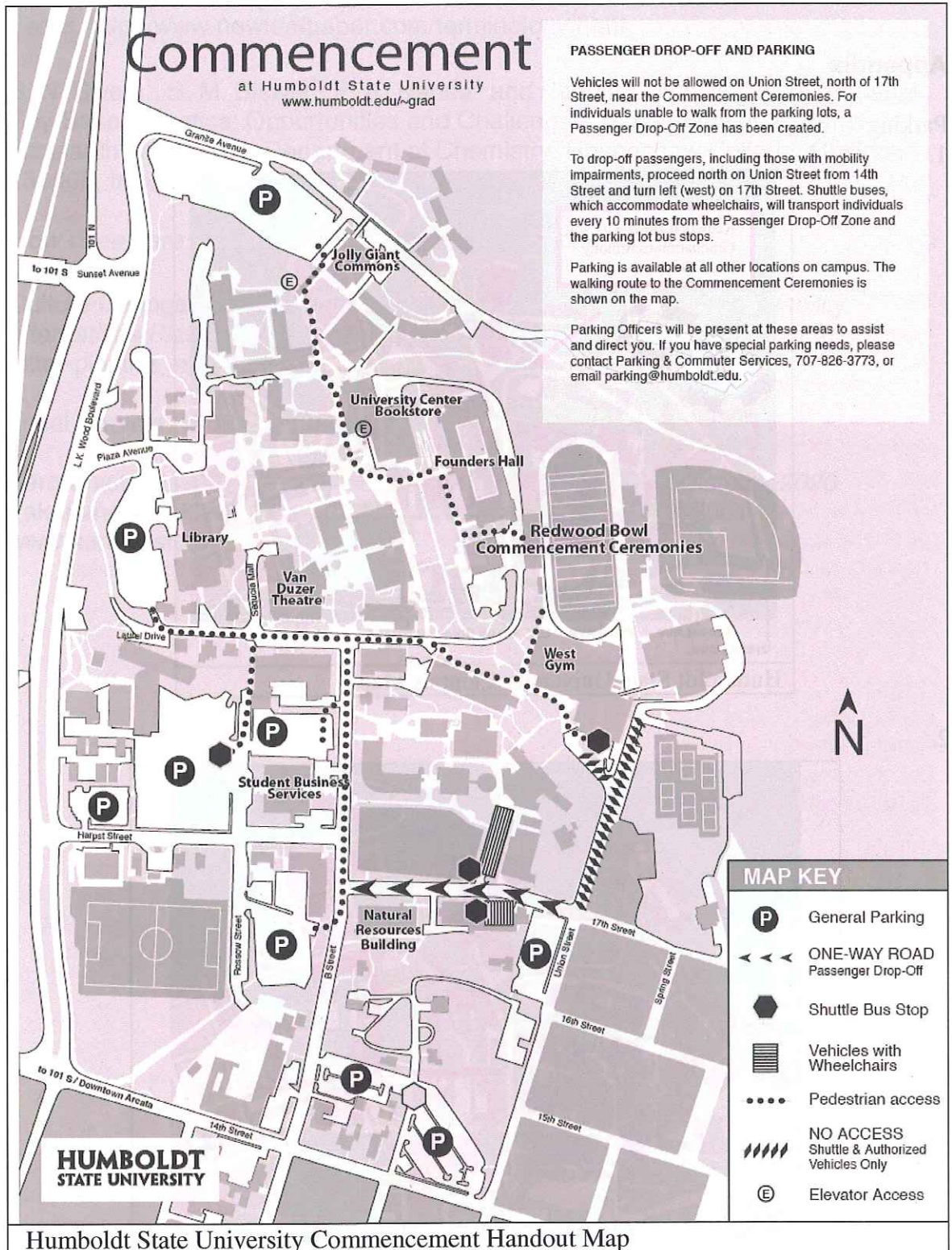
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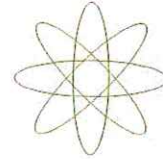
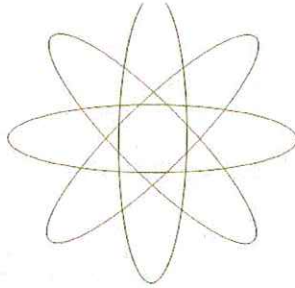
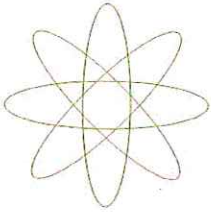
Parking 1.



2.

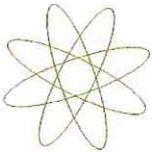
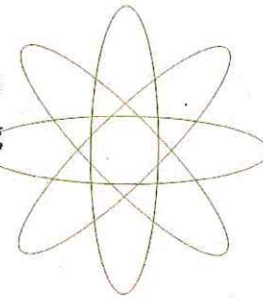






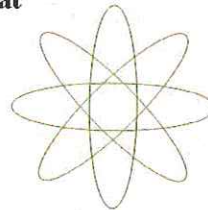
Calling All Artists

We are attempting the first ever Zero Waste Graduation! We need your help in designing a symbol to represent what it means to live in a closed loop system. Ideas need to be submitted by



This day

For more info Contact Roz at RRL9@humboldt.edu



Calling all Artists for a Symbol
Design Contact
RRL9@humboldt.edu

Calling all Artists for a Symbol
Design Contact
RRL9@humboldt.edu

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Design Contact
RRL9@humboldt.edu

5.

Costco Price Sheet

Product	Count	Price	Price per Piece
Forks	500	\$6.99	0.01398
Spoons	500	\$6.99	0.01398
Multi pack of silverware	360	\$8.59	0.023861111
Paper Napkins	1320	\$7.29	0.005522727
Dixie Cups	200	\$7.29	0.03645
Clear Plastic Cups	120	\$6.69	0.05575
Dinner plates	150	\$11.49	0.0766

Silverware	Color	Quantities	Shipwt.	Price
Biodegradable Non-GMO wheat forks	biodegradable natural	1 bag (24 biodegradable forks)	1 lb	\$5
Biodegradable Non-GMO wheat forks	biodegradable natural	1 case (1000 biodegradable forks)	15 lb	\$105
Biodegradable Non-GMO wheatspoons	biodegradable natural	1 bag (24 biodegradable spoons)	1 lb	\$5
Biodegradable Non-GMO wheat spoons	biodegradable natural	1 case (1000 biodegradable spoons)	15lb	\$105
Biodegradable Non-GMO wheat knives	biodegradable natural	1 bag (24 biodegradable knives)	1 lb	\$5
Biodegradable Non-GMO wheat knives	biodegradable natural	1 case (1000 biodegradable knives)	15 lb	\$105
Biodegradable Non-GMO wheat sporks	biodegradable natural	1 bag (24 biodegradable sporks)	1 lb	\$5
Biodegradable Non-GMO wheat sporks	biodegradable natural	1 case (1000 biodegradable sporks)	15 lb	\$105
Biodegradable Non-GMO wheat packaged sets	biodegradable natural	1 packaged set 8 spoons, 8 forks & 8 knives	1 lb	\$5
Biodegradable Non-GMO wheat packaged sets	biodegradable natural	12 sets 96 forks, 96 spoons & 96 knives	5 lb	\$60
Biodegradable Polyactic acid corn forks	biodegradable off-white	1 bag (24 biodegradable forks)	1 lb	out of stock
Biodegradable Polyactic acid cornforks	biodegradable off-white	1 case (1000 biodegradable forks)	15 lb	out of stock

Biodegradable Polyactic acid corn spoons	biodegradable off-white	1 bag (24 biodegradable spoons)	1 lb	out of stock
Biodegradable Polyactic acid corn spoons	biodegradable off-white	1 case (1000 biodegradable spoons)	15 lb	out of stock
Biodegradable Polyactic acid corn knives	biodegradable off-white	1 bag (24 biodegradable knives)	1 lb	\$2.50
Biodegradable Polyactic acid corn knives	biodegradable off-white	1 case (1000 biodegradable knives)	15 lb	\$52.50

Cups	Color	Quantities	Shipwt	Price
4oz hot or cold biodegradable cup	biodegradable sugar cane fiber	1 case(1500 cups)	16 lb	\$120
8oz hot or cold biodegradable cup	biodegradable sugar cane fiber	1 case(500 cups)	11 lb	\$44
8oz hot or cold biodegradable cup	biodegradable sugar cane fiber	100 cups	2 lb	\$8.80
8oz hot or cold biodegradable cup	biodegradable sugar cane fiber	50 cups	1 lb	\$4.40
12oz hot or cold biodegradable cup	biodegradable sugar cane fiber	1 case(500 cups)	17 lb	\$53
12oz hot or cold biodegradable cup	biodegradable sugar cane fiber	100 cups	3 lb	\$10.60
12oz hot or cold biodegradable cup	biodegradable sugar cane fiber	50 cups	1.5 lb	\$5.30
3oz biodegradable PLA clear cold cup	biodegradable clear PLA corn	1 case (2000 cups)	20 lbs	\$140
3oz biodegradable PLA clear cold cup	biodegradable clear PLA corn	100 cups	1 lbs	\$7
3oz biodegradable PLA clear cold cup lids	biodegradable clear PLA corn	1 case (2000 lids)	call	\$89.27
9oz PLA squat 35/8" top width 3" high 23/16" base width	biodegradable clear PLA corn	1 case (1000 cups)	19 lbs	\$120
9oz PLA squat 35/8" top width 3" high 23/16" base width	biodegradable clear PLA corn	100 cups	2 lbs	\$12
9oz PLA squat 35/8" top width 3" high 23/16" base width	biodegradable clear PLA corn	50 cups	1 lbs	\$6
9oz 12oz and 20oz biodegradable PLA corn cold cup lids	biodegradable clear PLA corn	1 case (1000 lids)	8 lbs	\$62.57
9oz 12oz and 20oz biodegradable PLA corn cold cup lids	biodegradable clear PLA corn	1 sleeve(100 lids)	1 lbs	\$6.26
10oz biodegradable PLA corn cold cup	biodegradable clear PLA corn	1 case (1000 cups)	22 lbs	\$100.20
12oz biodegradable PLA corn cold cup	biodegradable clear PLA corn	1 case (1000 cups)	28 lbs	\$120

12oz biodegradable PLA corn cold cup	biodegradable clear PLA corn	100 cups	3 lbs	\$12
12oz biodegradable PLA corn cold cup	biodegradable clear PLA corn	50 cups	2 lbs	\$6
16oz biodegradable PLA corn cold cup	biodegradable clear PLA corn	1 case (1000 cups)	34 lbs	\$127
16oz biodegradable PLA corn cold cup	biodegradable clear PLA corn	100 cups	4 lbs	\$12.70
16oz biodegradable PLA corn cold cup	biodegradable clear PLA corn	50 cups	2 lbs	\$6.35
16oz and 24oz biodegradable PLA corn cold cup lids	biodegradable clear PLA corn	1 case (1000 lids)	8 lbs	\$62.78
16oz and 24oz biodegradable PLA corn cold cup lids	biodegradable clear PLA corn	1 sleeve(100 lids)	1 lbs	\$6.28
20oz biodegradable PLA corn cold cup	biodegradable clear PLA corn	1 case (1000 cups)	40 lbs	\$161.70
24oz biodegradable PLA corn cold cup	biodegradable clear PLA corn	1 case (600 cups)	30 lbs	\$108.09

Plates				
Description	Color	Quantities	Shipwt	Price
7" round biodegradable plates	biodegradable sugar cane fiber	1 sleeve(50 plates)	1.5 lbs	\$4
7" round biodegradable plates	biodegradable sugar cane fiber	2 sleeves(100 plates)	3 lbs	\$8
7" round biodegradable plates	biodegradable sugar cane fiber	one case(1000 plates)	25 lbs	\$80
7" fluted edge biodegradable plates	biodegradable sugar cane fiber	1 sleeve(50 plates)	1.5 lbs	\$4
7" fluted edge biodegradable plates	biodegradable sugar cane fiber	2 sleeves(100 plates)	3 lbs	\$8
7" fluted edge biodegradable plates	biodegradable sugar cane fiber	one case(1000 plates)	25 lbs	\$80
9" round biodegradable plates	biodegradable sugar cane fiber	1 sleeve(125 plates)	5 lbs	\$15.50
9" round biodegradable plates	biodegradable sugar cane fiber	one case(500 plates)	20 lbs	\$62
10" round biodegradable plates	biodegradable sugar cane fiber	1 sleeve(125 plates)	7 lbs	\$21.25
10" round biodegradable plates	biodegradable sugar cane fiber	1 case (500 plates)	28 lbs	\$85
10" plates - three partition biodegradable plates	biodegradable sugar cane fiber	one sleeve(125 plates)	7 lbs	\$21.25
10" plates - three partition biodegradable plates	biodegradable sugar cane fiber	one case(500 plates)	28 lbs	\$85
9.2" x 6.5" oval biodegradable plates	biodegradable sugar cane fiber	one case(500 plates)	17 lbs	\$48
big plates - octagonal biodegradable plates	biodegradable sugar cane fiber	one case(500 plates)	18 lbs	\$53

6.

Sample Press Release

FOR RELEASE SPRING 2006

Contact:

Shaina Meiners

Humboldt State University

Arcata, CA 95521

Phone: 707-822-2709

www.humboldt.edu/~lcn4/zerowastegraduation.html

treehugger@warpmail.net

Student Initiated Zero Waste Graduation Ceremonies at HSU Showcases Sustainability Values

Arcata, CA -- November 28, 2005 – Students, family, friends and guests may notice some changes at this spring's graduation ceremonies at Humboldt State University. There will still be pomp and circumstance, shiny black robes, and a mixture of solemnity and glee as graduates, faculty and guests celebrate the achievements of our graduates. However, there will also be a series of shifts towards less waste and opportunities for education in the first Zero Waste Graduation in California.

If someone's parent goes for a cup of coffee at the reception on the Quad, he or she may notice it will come in a reusable mug provided by the Campus Recycling Program. Or graduates may notice the large signs encouraging them to donate their used gown to the Campus Center for Appropriate Technology for use by graduates in later years. However the most obviously different aspect will be when someone looks for a trashcan to throw something out. There won't be any.

There will be 'Resource Recovery Stations' where separate bins for recycling, composting—which includes the disposable plate), and one labeled "landfill". According to Shaina Meiners, one of the members of the Zero Waste Task Force, "Zero Waste is more than a shift to creating less waste. It is an entire philosophical shift towards closed loop systems thinking." According to Zero Waste philosophy, waste is a failure of imagination to effectively use our resources. While there will be some trash sent to a landfill after this graduation ceremony, but there will also be in what the Task Force considers a stepping-stone to a truly zero waste graduation, the first in the CSU system.

Zero Waste Graduation

Let's get involved in the first ever Zero Waste Graduation

Here's what to do:

- ✦ Try to carpool as much as possible- it's more important than ever to try to save on gas!
 - ✦ Try this: There is a ride share board- website fill in blank
 - ✦ Let's limit waste to the event, and recycle or reuse food or beverage items purchased at the event.
 - ✦ For all of us going to receptions take advantage of the Resource Recovery Stations.
- CCAT, Campus Center for Appropriate Technology, is



Zero Waste Graduation began as a project for Sustainable Campus. We believe that ceremonies celebrating the accomplishments of our students and staff should reflect the values we have at Humboldt State. It is our mission to provide a positive commencement experience while generating minimal negative environmental and social impacts. The commencement and associated celebrations could then be used as continuing education on waste reduction for all attending.

8.

Zero Waste Graduation Phone Log

Last Updated: 12/4/2005

Last Name, First Name	E-mail	Work Number	Information
Alvaredo, Nicole	nma4@humboldt.edu	707.826.5412	Associated Students (AS)
Antrim, Aaron	altrans@humboldt.edu	N/A	volunteer, Green Wheels
Barns, Tyler	tmb30@humboldt.edu	N/A	Zero Waste Graduation Team Member
Brie, Pendelton	abp3@humboldt.edu	822-2754	Volunteer
Brunner, Matt	mdb4@humboldt.edu	707.826.5563	Supervisor - Graphic Services
Dalton, Hugh	hd7001@humboldt.edu	707.826.3398	Graphic Designer - Graphic Services
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Hemenway, Brandon	brandon21@cox.net	831.917.1053	AS liason to the Graduate Pledge Alliance
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Kearns, Sean	sjk4@humboldt.edu	707.826.5151	Sr. Comm. Officer - Public Affairs
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Newcamp, Lisa	lcnewcamp@hotmail.com	N/A	Zero Waste Graduation Team Member
Peters, Larry	lap7001@humboldt.edu	707.826.3309	Director- Graphic Services
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Sullivan, Stephen	stephen.sullivan@humboldt.edu	707.826.4640	Manager, Parking & Commuter Services
Swift, Jennifer	jes7002@humboldt.edu	707.826.5846	Bookstore, gowns
Sylvia, Jean	jsylvia@coa.edu	207.288.5015 ext n302	College of the Atlantic
Woodstra, Sue	sjw7002@humboldt.edu	N/A	Volleyball Coach, Concessions at Ceremony



HUMBOLDT STATE UNIVERSITY

EVENT PLANNING FORM

Organization Activity: (detailed description of organizations activity)

List potential risks/problems areas associated with each component of your activity and the action steps your organization will take to mitigate them.

<p>Physical: Physical risks can include things such as food poisoning, injuries that may result from physical activities, injuries that may result from travel related accidents.</p>	
<p>Reputation: Reputation risks are those things that may result in negative publicity for your organization, CSU, your advisor and/or the venue where you are holding event.</p>	
<p>Emotional: Emotional risks are those things that can cause a participant at your event to feel alienated or negatively impact the feelings of a member or members of the CSU community.</p>	
<p>Financial: Financial risks are those things that negatively impact the fiscal stability of your organization and/or other organizations financially supporting your event.</p>	
<p>Facilities: Facility risks are those things which may cause property damage, prevent your event from being held (bad weather, not enough space for the number of participants, lack of equipment or materials needed for the event).</p>	

The examples of risks on this form are not intended to be all-inclusive; rather they are intended to act as a guide for students using the form when assessing risks associated with their activities.

EVENT/ACTIVITY PLANNING - RISK ASSESSMENT MATRIX

	PROBABILITY			
	A	B	C	D
SERIOUSNESS				
I	5	5	4	3
II	5	4	3	2
III	4	3	2	1
IV	3	2	1	1

- SERIOUSNESS OF RISK**
- I. May result in death
 - II. May cause severe injury, major property damage, significant financial loss, and/or negative publicity for the University
 - III. May cause minor injury, illness, property damage, financial loss and/or negative publicity for the University
 - IV. Hazard presents a minimal threat to health, safety and well being of participants and/or spectators

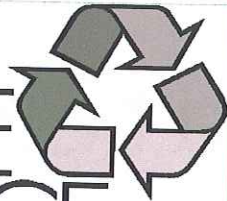
- PROBABILITY THAT SOMETHING WILL GO WRONG**
- A. Likely to occur immediately or in a short time frame, expected to occur frequently
 - B. Probably will occur in time
 - C. May occur in time
 - D. Unlikely to occur

WHAT DO WE HAVE IN PLACE TO REDUCE THE RISKS WE IDENTIFIED?

ACTIVITY	ASSOCIATED RISKS	METHOD TO MANAGE

This form has been provided as a tool to develop a process for identifying and discussing potential risks. It is intended for use as a part of the risk management event/activity planning assessment process, and should serve only as a starting point. Completion of the form does not imply approval or authorization of the event by the University.

REUSE
REDUCE
RECYCLE



Zero Waste Graduation

“Everyone here—students, faculty, staff, and community—is engaged in **learning to make a difference**. It is a daily, collective effort on behalf of a premier institution that is devoted to the study and preservation of the environment and its natural resources.” -HSU Website

Humboldt State University
ENVS 411 Sustainable Campus
Fall 2005

Mission Statement

We feel that we could make a significant impact by celebrating the commencement of our seniors with a Zero Waste Graduation.

This celebration could raise the bar for other schools in the CSU to become more environmentally aware.

We would like to focus on:

- Transportation
- Commencement Products (pamphlets, invitations, flowers, etc.)
- Reusing, Reducing, and Recycling as much of the materials used in the ceremony and receptions to follow.

These are just a few of our concentrations.

We would like your input on this proposal and any aid that you could give us.

We are aware of many of the inhibiting factors, but we are dedicated to making a difference and we hope that with your help we could work at creating the first ever Humboldt State University Zero Waste Graduation.

Thank You

Humboldt State University's Vision

- Humboldt State University will be the campus of choice for individuals who seek above all else to improve the human condition and our environment.
- We will be the premier center for the interdisciplinary study of the environment and its natural resources.
- We will be a regional center for the arts.
- We will be renowned for social and environmental responsibility and action.
- We believe the key to our common future will be the individual citizen who acts in good conscience and engages in informed action.
- We will commit to increasing our diversity of people and perspectives.
- We will be exemplary partners with our communities, including tribal nations.
- We will be stewards of learning to make a positive difference.

Contact Information

- Tyler Barrs - tmb300@humboldt.edu
- Roz Litzky - rr19@humboldt.edu
- Shaina Meiners - treehugger@warppmail.net
- Lisa Newcamp - lcnewcamp@hotmail.com

Other Sources and Information

- College of the Atlantic No Waste Graduation - http://www.coa.edu/html/pressreleasesearchive_pg1_5.htm
- San Mateo County Recycle Works - <http://www.recycleworks.org/schools/nowaste.html>
- EcoRecycle - Victoria - <http://www.ecorecycle.vic.gov.au/www/html/7-home-page.asp>
- Be Smart Guide - http://www.uwm.edu/Dept/besmart/festival/festival_frame.html
- EPA Waste Reduction - <http://www.epa.gov/epaoswer/non-hw/reduce/grnmtgs/mtg.htm>
- Many Other Links Can Be Found Online.

Humboldt State University

Sources for this pamphlet:

Humboldt State University: www.humboldt.edu

More Sustainable Celebrations: "Barcolona Town Hall"

http://www.bcn.es/agenda21/A21_textos/guies/sustainableceleguide.pdf



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- How much trash does a graduation ceremony and reception generate?



- There are multiple ways to control the waste generated.

- We all can make a difference!



We are aware of many of the inhibiting factors, but we are dedicated to making a difference and we hope that with your help we could work at creating the first ever Humboldt State University Zero Waste Graduation.



Join Us in Making a Difference at Humboldt State University!!



Humboldt State University

Thank you for taking the time to read this proposal and we hope to see this idea form into a healthy tradition



HUMBOLDT STATE UNIVERSITY

REQUEST FOR HOLD HARMLESS (INSURANCE) LETTER

Date: _____

To: Human Resources and Risk Management
C. Hunt SH 211 Ext 5172 Fax 3625

Name of Requester: _____

Phone: _____

Requested by (department/club name) _____

Signature: _____

Activity: _____

Date of Activity: _____

Time of Activity: _____ to _____

Number of Participants (approx): _____

Will Alcohol be served? _____

If "yes" written permission to serve alcohol must be obtained from the Vice President of Student Affairs and attached to this form.

Facility to be used: _____
(location of activity)

Address of Facility: _____

Attach agreement form by the facility being used.

Is/Are facility owner(s) requesting to be named Additionally Insured? YES _____
NO _____

Additional Information: _____

Send insurance letter to: NAME: _____

ADDRESS: _____

Approved by Risk Manager

Date