The Softer Side of Sustainability: Community Based Education, Leadership, and Action at Pacific Lutheran University

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The Softer Side of Sustainability

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Abstract

When confronting the broad issue of environmental degradation and climate change, the role of Universities both as communities and educational institutions cannot be understated. Universities serve to educate future leaders as well as to act as leaders within their communities; therefore informed action on sustainability within this sector continues to impact society at large both directly and indirectly. As institutions begin to "green," importance must be placed on the sharing of information among them as to strengthen each effort from the lessons of others. Through action-based research of universities in the Pacific Northwest, this document describes efforts within sustainability and applies results to Pacific Lutheran University. Campus sustainability is improved by five main key elements: community, leadership, education, as well as the pairing of hard and soft sustainability. All five aspects are necessary for systemic change within a university system.

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INTRODUCTION

In today's political climate, the topic of global warming has become controversial. However, regardless of beliefs in that arena, it is increasingly difficult to ignore human impact on our surrounding environment, and its reverse impact on humans. Those that recognize the complexity of this topic may often feel overwhelmed by the seemingly insurmountable problems we must overcome to attain true sustainability.

Approaches to sustainability must be viewed as part of an interdependent system, just as our planet is. Changing one area will inevitably affect another, and therefore all reactions must be considered in advance of each action. Similarly, this system relies heavily on the progress of one sector to advance in another. Universities, as communities, have a unique opportunity to experience sustainable initiatives and innovation in a relatively risk free learning environment. However, those which focus only on one aspect of sustainability continue struggle like other communities to implement change. The system of campus sustainability includes a cycle of development within community building, education, leadership development, as well as physical sustainable infrastructure. Success in one theme relies on the advancement of each of the others, and none can be successfully incorporated without some form of support from the others. In its most basic form, action on sustainability requires an understanding of the problem, as well as visions for potential solutions.

The Only House

Picture your house: your family members, the number of rooms, the furniture, the bathroom, the kitchen, the trashcan, the walls, the roof, the basement, and the foundation. Now imagine that your house is the only house in your city, and everyone in your entire community comes to live in that one house. Your new housemates don't view the house as their responsibility, as they are only visitors in it. Some rooms have more people, some have less, but

no matter which room you live in it's crowded. So many people live there that the water and food have begun to run out, and the faucet only allows for an occasional drip while the refrigerator is practically empty. Only those living in the kitchen and bathroom have access to that drip of water, only those living in the kitchen have access to the remaining food, and they can share these resources or not however they choose.

The waste created by so many people living together begins to build up; and suddenly you realize there is no garbage collector. Those living in the house continue to reproduce, stretching resources thinner, and causing the foundation, walls, and furniture to weaken and give way under the weight of so many people. Energy sources are scarce due to overuse; and the struggle between those with access to food, water, and energy and those without builds tension and conflict. The walls around your community begin to crumble.

At the end of the day you reflect on the seemingly intractable problem of cohabiting with so many people who are all competing for limited resources. How can you possibly resolve the problems of diminishing resources, energy struggles, waste build up, overcrowding, and escalating conflict? You begin to think that it would be easier to simply move to a new house rather than face the long, painful process of collaboration and sacrifice necessary to salvage and revive this house and build consensus towards a better future.

Now imagine that your house is the only house in the world, and you have nowhere else to go. It becomes imperative for your community to repair the damages done to the house so you can continue to live there, yet there are few who will help or lead in the repairs. You develop a plan for change and tell people about it, but because they didn't have a say they don't want to take part. You try to build connections between all the rooms to spread the water and food so others can live as well as those in the rooms *with* access to these resources. However, few in the kitchen and bathroom *want* to share their resources, and within each of the other rooms there are still those who dominate and covet the resources given for themselves. You divert all waste to

the basement, in hopes that you can contain it there, yet it never decomposes, only growing as it begins to stretch the limits of the house structure pushing out and contaminating the limited resources. You nail plywood across the gaping holes in the wall, foundation, and roof the crowded house, yet people within continue to live the way they did before the damage was done, and the holes reemerge. Many refuse to see the damage at all, and minimize or deny their individual role in any household problems. Others acknowledge the damage, but few feel any hope that it can be repaired let alone reversed, and even fewer can see a clear path for change.

Planet Earth, Our Home

The degradation of the house described in this story is an uncomfortably close analogy to the path we are walking today on this small, beautiful, blue planet called Earth. Four dominant themes are addressed in this story which must also be addressed in the world today: carrying capacity, basic natural resources, energy, and climate change.

Earth's carrying capacity, the capacity of our house, is determined in part from the consumption levels of those who inhabit it and in part on the ecological capacity of the planet itself (Nielsen 2006, 11). In terms of consumption, Earth is capable of supporting 4.8 billion; today there are close to 6,764,860,994 people living on Earth. Ecologically, our current population is 28% higher than Earth's capacity. 130 million children are born each year, 90% of which are born into developing countries, our only house's most crowded rooms (Nielsen 2006, 17). With an expected global population of between 7.1 - 8.8 billion for 2025 and 9.2 - 9.6 in 2050, Earth is nearing its maximum short-term carrying capacity; a capacity it can only sustain for a limited period of time (Nielsen 2006, 11)

Life on Earth is dependent upon land, atmosphere, and water; with the loss of quality or change in the distribution of any one of these elements survival would be impossible. Past and current mismanagement of these resources poses a severe threat to all life on Earth. Land is

degraded through overpopulation and poor land-use practices. Procedures such as clear-cut logging, mono-crop farming, toxic chemical dumping, and failure to replenish soil all increase erosion and decrease soil productivity. These problems negatively impact crop yields, costs, and quality of food. Further damage is done with the loss of large stands of trees that remove pollution from the air, provide a home for wildlife, and add beauty to our surroundings. The health of our atmosphere is at risk due to an ever-increasing human appetite for mass-produced goods, energy intense technologies, and petroleum engine transportation. Landfills continue to grow as waste increases; with an approaching lesson that out of sight is not a solution.

Clean drinking water, though seemingly in abundance in the United States, remains a scarce commodity in many developing countries. Long-term drought, under-regulated industries, poor agricultural practices, and the sale of clean water to nearby wealthier communities and countries make some countries more vulnerable than others as clean water is rapidly diminishing on a global scale as well. In the year 2025, it is expected that 48 countries will suffer severe water shortage, and that in 2032 4.5 billion people will suffer water stress. The majority of these people will live in the developing world. More developed countries continue to lead the way towards degradation of these elements, as they pollute and diminish our air, land, and water. (Nielsen 2006, 3)

Though energy is abundant on Earth, much of our energy comes from fossil fuels (petroleum, coal, and natural gas) as well as hydro energy and nuclear energy. Each of these either poses severe threats to our environment or access to it remains limited. US consumption of energy alone accounted for a quarter of the global use of energy in 2000, as an individual in the US consumes nine times more energy than an individual in a developing country on average (Nielsen 2006, 119). Around 20% of energy use internationally comes from transportation (Nielsen 2006, 149), and it takes little more than a glance at city streets to see that change in this area is not heavily pursued.

Human activity continues to impact our environment through anthropogenic activities that cause global warming, lead again by industrialized countries whose carbon emissions per person are on average seven times higher than those in developing countries. Yet again, it will be those in developing countries who will be the first to suffer. Little will be left unchanged by climate change, as it touches areas such as agriculture and food security, droughts and floods, water availability, extinction, the rise of infectious diseases, tropical storms, and the disappearance of glaciers.

Addressing Environmental Degradation

Solutions come in many forms, and for such a multifaceted crisis, multidimensional reactions are necessary. At the community level, two kinds of solutions exist: hard and soft. The terms "hard" and "soft" have been used in several ways in regards to sustainability. Hard has, in the past, meant strong, or preventative of the depletion of any natural resources. Conversely, "soft" has meant weak, or accepting of the depletion of certain resources (Agyeman et al. 2003, 5). These terms, however, take on a different meaning for the purposes of this research. *Hard* sustainability is that of physical solutions such as infrastructure; *soft* sustainability is the human side of each solution. Hard solutions for sustainability include action such as retrofits, building LEED certified buildings, and incorporating facilities to manage recycling or composting. Soft sustainability focuses on lifestyles, and *how* people live within those hard structures. Each of these relies heavily upon each other, as we learn from the story of the Only House. Simply improving the physical structure of a place does not make it sustainable; those living within the structure must alter their lifestyles as well to complete the circle. Otherwise, those using the building are working against the physical changes made. For example, retrofitting a showerhead to be more water efficient is a crucial step, however if those that use the showerhead are still taking 45 minute showers, it decreases the efficiency of the change. Conversely, pairing a hard

change with a soft change, such as a more efficient showerhead paired with taking shorter showers, can have an larger impact. Though many institutions and research stress the importance of hard changes, few acknowledge the need for soft change. This document acknowledges the importance of both, yet focuses on potential soft changes within communities.

As we learned from the story of the Only House, the foundation of successful sustainable action begins long before tangible solutions take place. Due to the systemic nature of the crisis, any solution must also be interdependent. Systemic change, therefore, begins and ends with a strong sense of community, informed and inclusive leadership, widespread understanding and education, as well as both hard and soft approaches to solutions. These five themes will be woven together throughout this document to inform readers of their equal value and interdependence.

Community

No sense of community existed in The Only House, and therefore when confronted with an increase in population, diminishing resources, an energy crisis, buildup of waste, and ensuing human conflict, there was no foundation to produce solutions. Those living in the house did not view it as their responsibility to fix the problems because they saw their stay as temporary, leading to a lack of collaboration in reaction to it. A sense of community and shared feeling of responsibility are the foundation to sustainability, both social and environmental.

Leadership

Because few were involved in developing a solution, the majority did not feel they had an impact on decision-making. Those that did step forward to act were working against the majority, and saw that each repair made was simply unmade again. Inclusive leadership draws diverse voices to the decision making table, allowing communities to take ownership over their

own solutions. Successful leadership in this field will account for that although not everyone will be an advocate for change or action, each individual can play a crucial role in sustaining the changes made.

Education

Many in the house did not understand the scope of the problem or their individual role in it, and therefore only furthered the damage by continued destructive habits. Knowledge of a topic can lead directly into hard or soft action to address it. Understanding the scope of such a crisis can strengthen a strong community, or dilute a weak one. Either way, education is a critical step towards developing solutions; without which solutions easily create yet more problems in the future.

Hard Sustainability

In the Only House, those that attempted to improve conditions focused exclusively on physical changes to the house, such as closing holes in the walls or foundation or creating connections between rooms through which to pass resources. However, each time a fix was attempted, it was undone by the actions of people within the house. This had much to do with the lack of community, a non-inclusive leadership, as well as the absence of understanding of the problem being addressed. Had these forces not been working against the hard changes, then repairs and proactive infrastructure could have been seen as a means to support other changes made. The hard approach, though seen often as a quick fix to a long term problem, is still critically necessary in any sustainable solution.

Soft Sustainability

Though a few individuals worked to repair the physical damage of the house, there was no change in the lifestyles of those who lived within it. This simply led to the recreation of more physical damages, showing a need for soft change to match the hard changes. The soft approach focuses on issues such as attitudes, lifestyles, and education as a means of not simply reacting to the damage done, but to proactively make changes to prevent further damage. As with each of the other themes, this relies heavily upon each of the others. Community based learning on how to live *within* the hard approach changes amplifies the effects of such innovation.

Each theme is interdependent; community can inspire leadership and a feeling of ownership or responsibility to react to a problem, education can lead to an understanding of issues and possible solutions which in the case of environmental degradation inevitably leads to a discussion of both hard and soft solutions.

The "S" Word[1]

> *When Rachel Carson wrote Silent Spring, no one had heard of deep ecology. When Naess coined the term deep-ecology, nobody had heard of the term sustainable development. When sustainable development became popular (World Commission on Environmental Development, 1987), eco-feminism was virtually unknown and in its infancy. In other words we have no idea where we might go next. Higher education has first and foremost something to do with creating possibilities, not defining or prescribing the future for our students. These possibilities arise when universities promote the exploration, evaluation, and critique of emerging ideas and the creative contribution to their development. Viewed as such, sustainability is best seen as only one of many stepping-stones (Wals and Jickling 2002, 221-232).*

[1] During his interview, Professor Proctor of Lewis and Clark University referred to "Sustainability" as the "S-word."

Both ambiguous and precise, *sustainability* is a living and therefore ever evolving concept and vision. Though literally defined as a practice or state which can be maintained ad infinitum (B.C. Ministry of Forests, 12), the commonly sourced United Nations Brundtland Commission in 1987 narrows this definition to “development which meets the needs of the present without endangering the ability of future generations to meet their own needs” (UN NGO Committee on Sustainable Development), giving the term a political context around the allocation of resources and the development process. Though scientific, social, and economic understanding of the term stretch from the Sustainable Seattle definition of long term cultural, economic, environmental, and social vitality (Sustainable Seattle 1998) to the Coop America’s description of “an emphasis on preserving the environment, developing strong peaceful relationships between people and nations, and an emphasis on equitable distribution of wealth" (Coop America Quarterly 1995, 46), the term by each diverse definition has found itself to be versatile, contextual, as well as interchangeable.

Within educational institutions, “sustainability” takes on several new dimensions. Described by Richard Clugston and Wynn Calder in *Critical Dimensions of Sustainability in Higher Education*, campus sustainability is shown as a thorough understanding among all members of the community of how the campus functions in the ecosystem, it’s role in a sustainable economy, and how it treats or rewards employees who exemplify or promote efforts within research, campus life or activities (Clungston and Calder 1999). It should be echoed in the mission statement, learning objectives, and course offerings within all academic disciplines, requirements, as well as opportunities for further staff and faculty development. Universities may also be deemed sustainable by their ecological footprint, policies and practices, environmental audits, community outreach and programming, and the integration of environmental friendly ethics into every department. Moreover, a sustainable university supports

collaborative leadership through a sustainability council or task force as well as a sustainability coordinator within the community. Professor Jim Proctor reminds that “it can’t stop at the boundaries of the campus, if it’s really about our lives and how our lives are connected to other lives,” therefore a sustainable campus must also take steps to support efforts in their surrounding region and world. Educational institutions rarely accomplish each of the above described aspects of a sustainable campus, however success within a few key areas are a common focus (Clungston and Calder 1999). Success in this evolving concept of a campus that models sustainability depends heavily upon community, leadership, education, and the hard and soft approach to solutions. Each theme demands effort and collaboration, and as Proctor describes that “we have to make priorities, we have to figure out little compromises, and we have to figure out where there can by synergies between what look like different agendas” (Proctor 2007).

Leith Sharp, the Founder and Director of the Harvard Green Campus Initiative, describes that in the university setting, “any effort to bring about wide scale participation must be responsive to the existence of three predominant subcultures that exist within universities – faculty, administration, and students organizational cultures…. Evidence suggests that the greatest leverage in achieving institutional change occurs when all three subcultures or groups have a shared vision and a sense of organizational alignment in their respective actions” (Sharp 2002, 10). Among the various northwestern institutions it was found that though collaboration among two of the three subcultures is common, a shared vision among all three is rare. Just as in the story of *the Only House,* frequently one of the subcultures would begin to address the change, but due to a lack of overall community support would face roadblocks along the way. Effective programs or initiatives on many campuses stemmed from the occurrence of collaboration, yet instances of complete community support were rare. Within universities where community is a foundation and collaboration a norm, sustainability as both an idea and lifestyle thrive.

The Softer Side of Sustainability is the product of an action-based research fellowship themed around leadership, education, and lifestyles within universities as communities, in particular Pacific Lutheran University. It began with addressing life in residence halls, and mushroomed into all forms of the soft approach, as successful initiatives in sustainability don't focus on one single program; they are about transforming an entire system and the means in which it functions (Sharp 2002). *Successful* campus sustainability initiatives necessitate a strong community foundation as well as continuous collaboration and communication among faculty, both administrative and non-administrative staff, and students. Just as in the story of the Only House, campus movements for sustainability have discovered the necessity of community, leadership, education, and both the hard and soft approaches to systematic change.

This document provides a framework for understanding these vital elements in developing a culture of sustainability on college campuses and provides examples of their application at Pacific Lutheran University.

METHODS

My work as a fellow began with researching the past and current sustainability initiatives at PLU and collecting input from communality members on potential areas of improvement. In order to learn from others working on similar projects, interviews were conducted at six other regional institutions and research was conducted to study leading green campuses. Best practices were filtered through these interactions, which allowed for much sharing and professional feedback. These practices were then applied on the PLU campus through collaboration with various units.

Several professors and staff members of Universities in the northwest were interviewed in this process, including Karen Price, Campus Sustainability Manager at Seattle University, Steve Trotter and Nancy Parkes of the Sustainability Task Force and Monique Vallot and Julie

Silipo of Residential Life at Evergreen State College, Seth Vidaña, Campus Sustainability Coordinator at Western Washington University, Jennifer Allen, Associate Director of the Center for Sustainable Processes and Practices at Portland State University, Kathleen Fisher of campus and environmental safety and Michael Leidecker Associate Dean of Residential Life at Reed College, Jim Proctor, Chair of the Sustainability Committee and Professor of Environmental Studies at Lewis and Clark College, as well as Julian Dautremont-Smith, Associate Director of Association for the Advancement of Sustainability in Higher Education. These case studies were then applied to the PLU model to gauge both strengths upon which to capitalize as well as areas of improvement down the path towards systematic change. Commonalities arose from the many interviews, determining consistent areas of potential improvement for all area universities, predominantly surrounding effective community based action.

COMMUNITY

> *"What brings together the members of any community may be common locality, common problems, common interests or investment, or initiative - but at heart, a true community is one in which problems, hopes, and challenges are shared. In a community that sustains itself, people face issues and seek solutions together, accounting for each other's differences and commonalities. We all wish to breathe clean air and drink clean water; we all wish to have good work and real opportunity; and we wish to give these things to our children, whom we love. This is true everywhere" (Presidents Council on Sustainable Development).*

When confronted with complex issues such as environmental degradation or climate change, ones ability to problem solve is heavily dependent upon feeling a shared responsibility for a common future as part of a strong community, believing one can make an impact on that

problem, having access to understandable information needed to educate oneself, and knowing ones community is working cooperatively to share with and learn from others also affected by the problem. Lasting solutions occur when all members of a community are working collaboratively and cooperatively towards identifying and implementing a solution (Presidents Council on Sustainable Development). “In this view a sustainable world cannot be created without the full and democratic involvement of all members of society; a sustainable world without participation and democracy is unthinkable” (Wals and Jickling).

Campus Communities

> *“Universities educate most of the people who develop and manage society's institutions. For this reason, universities bear profound responsibilities to increase the awareness, knowledge, technologies, and tools to create an environmentally sustainable future” (Association of University Leaders for a Sustainable Future).*

Universities, as businesses, have a responsibility to view themselves as part of a larger system and therefore to operate by the triple bottom line. This requires taking into account economic, environmental, and social resources used in the operation of the institution. Though economic stability is fundamental to sustaining the business itself, minimizing or reversing their impact on our earth, engaging community members in sustainable lifestyles, and infusing the broader community with the knowledge and ability to continue sustainable practices, allows a business to find common ground between financial interests, social needs, and an environmental imperative (Savitz and Weber 2006, 22).

Universities, as places of learning, hold a profound ability to create change by not only acting as testing ground themselves but to use the tools and systems of learning to engage students, potential future leaders and innovators, to become champions of this cause. “The university is a microcosm of the larger community, and the manner in which it carries out its

daily activities is an important demonstration of ways to achieve environmentally responsible living" (Cortese 1997). Modeling sustainability through both the hard and soft approach allows the university to use itself as a teaching tool, helping community members practice more sustainable lifestyles in a supportive surrounding. Such surroundings may be utilized in the academic sector, to bridge a gap between formal and informal learning. Students then have experience working and living with such innovations and can therefore implement them in their future lives. As Orr describes, the result of such an educational experience would be "ecologically literate citizens able to distinguish health from its opposite and to live accordingly" (Orr 1992, 108).

Universities, as communities, have a responsibility to foster collaboration and communication among all sectors, faculty, staff, and students. All parties must be included in the decision making process, and all parties must agree on objectives and goals of sustainable initiatives. Only with such strength of community can sustainability be addressed and disseminated throughout a campus.

Though building a strong sense of community is a fundamental step towards fostering change, it is a step too often skipped over. Proctor explains that on the Lewis and Clark campus the students, staff, and faculty "feel a little distance from each other… they really have their own goals and their own agendas, and their own issues that they're passionate about… It's a hard thing to maintain. We're not finding a very strong, abiding, sustained sense of community at LC, which is absolutely necessary to any good green or social thing you want to do around campus. And that's a basic, basic challenge. I don't think we're peculiar in that way, I think it's kind of what modern society is like." As Proctor describes, this separation is in no way an abnormality.

Reed College experiences a unique form of separation, as the students themselves don't appear to want to engage in a sense of community, even among other students. Michael Leidecker, Associate Dean of Reed College Residential Life, explains that "Sometimes I wonder

if it's because they're so academically inclined… It is very, very hard to get students to want to be a part of the community. Most students want to be in singles…. We have to figure out how to help them see the value and the need to be involved… or just in general building relationships" (Leidecker 2007) At other Universities, students can experience over commitment to programming, and are perhaps drawn too thin. Seattle University, which has a strong focus on social justice, experiences a student body so diligently concerned with social sustainability that they rarely have time or energy left to address environmental concerns (Price 2007). Another common concern is that with the turnover of students, it's difficult to maintain energy and connections between sectors (Allen 2007). However, universities and graduates alike can benefit extremely from continuing to engage their alumni in continuing initiatives or projects.

Possibilities in Campus Communities

As rare as strong campus based communities are, when the three subcultures do line up, incredible opportunities arise. Effects of such cooperation include faculty and staff supported student resolutions, curriculum development, and university policies. Sustainable communities also tend to attract future members either already engaged in or looking to become involved in such progress, therefore fueling continued progress.

Sustainable campus communities face the opportunity to engage themselves in city or regional level activities in regards to environmentalism. Portland State, a University well integrated into the surrounding city of Portland, exemplifies their motto of "Doctrina urbi serviat" (Latin: Let Knowledge Serve the City). Jennifer Allen explains how effective collaboration with the city has been in enriching their programs. "…We do have a lot of innovative thinking going on at the city level which helps a lot. But also the office of Sustainable Development here is always willing to talk to other places about why do we do it, how do we do it, what are the benefits to us to doing this; because they're very interested in

spreading this as much as possible" (Allen 2007). Members of the PSU community have the opportunity to learn from as well as teach new innovations and techniques to a broader community, therefore enacting change on a broader scale.

Community at Pacific Lutheran University

Pacific Lutheran University has seen much progress in its sustainability initiatives, due to a wide reaching support in each of the three subcultures: staff, faculty, as well as students. It is host to an abundance of internal community, empowering a shared vision that charges movement towards sustainability on campus. This shared vision toward sustainability is largely upheld by a diverse group involved in the PLU Sustainability Committee. Students, staff, faculty, and alumni from various departments join in the vision setting and story telling role of the group.

Due to PLU's strong community, effort was placed on utilizing and enriching those foundations to implement change; directing the focus of individual members of the campus to one common goal: sustainable lifestyles. As part of this fellowship, the *liveGREEN Pledge* was developed to build on what progress had already been made and to further the individual ownership over a collective harm. The *Pledge* began in the fall of 2007 and remains open to any community member wishing to engage personally in the topic.[2]

Community members have the opportunity to sign the *liveGREEN Pledge* as individuals or as a member of a group, such as a committee, club, department, or staff. Members are encouraged to sign on with a group, which allows for an even stronger community based program. All participants pledge to "…lead a more sustainable lifestyle, which takes into account both the environmental and social impacts of [their] actions; [to] strive within [their] home, community, and place of work or study to reduce Pacific Lutheran University's

[2] See Appendix for full text of the liveGREEN Pledge.

environmental impact." Beyond the statement, participants pledge to incorporate at least one achievable action into their everyday lifestyles from each of the five areas of impact; including waste, energy, food, transportation, and community. In the fall of 2007, over 150 individual students, staff, faculty, as well as groups signed the *liveGREEN Pledge* and began their commitment more sustainable lifestyles.

Community in the Future

Given the already existing sense of community, many future steps become possible, as learned from area universities. Members of the PLU community often refer to the campus as the "Lute Dome," which is surrounded by Parkland and Tacoma, where students, programs, or academics rarely venture. More recent steps have been taken to connect PLU to the surrounding residential community and businesses, such as the building of the Garfield Commons, a shopping center that extends from the campus into the community with accessible restaurants and businesses as well as the revival of an organic community garden which promotes collaboration with neighboring residents and food banks. Keeping in mind the steps PLU has already taken, such as service learning projects in the local community, further action is necessary, to integrate students, staff, and faculty into the surrounding community and conversely to bring local residents and business owners to the table as sustainability initiatives are discussed. The collaborative effort already begun must continue to be developed, as more alumnus, donors, area businesses, and residents are incorporated into a more diversified community.

LEADERSHIP

> *Promoting sustainability in higher education depends significantly on the active engagement of disciplinary leaders in promoting ecologically sensitive theory and sustainable practices as central to the scope and mission of their fields (Clugston and Calder 1999).*

Sustainable campus leadership takes shape in various different forms; from each sector of the community advocates must step forward with a commitment to not only incorporate more environmentally friendly activities into their own area of expertise but to also promote campus wide sustainability.

In order to fully integrate sustainable practices into a campus community, the concept must be well represented within the mission statement and values of the institution. Influence on the incorporation of such goals into university wide initiatives come from various areas of campus, yet the role of the President and Board of Regents or Trustees in such deliberations remains central. The inclusion of sustainability, both social and environmental, in a university's mission provides a beacon for community members wishing to attend or work at an institution with such a focus, as well as providing support to any members working towards hard or soft change within the institution itself.

The role of University Presidents in the sustainability movement cannot be understated. Numerous declarations and commitments have been targeted towards these leaders, and Presidents who dedicate their communities to such endeavors act as visionaries for all change to follow. The 1990 Talloires Declaration (Association of University Leaders for a Sustainable Future 1990), which included ten action plans for addressing sustainability, was the first of its kind to be made by leaders in higher education. It states that "university heads must provide

leadership and support to mobilize internal and external resources so that their institutions respond to this urgent challenge" (Wright 2002). The declaration has been signed by around 350 Universities across the globe, and has been a benchmark for sustainable campus initiatives. The Kyoto Protocol for addressing greenhouse gas emissions and the President's Climate Commitment for providing leadership in sustainability are more recent pledges University Presidents can consider.

A vision for such change however, must be grown from all sectors of an institution. Faculty members hold a profound ability to enact change; whether within their classrooms as educators, in curriculum development, in their publications through research, or within campus operations, governance, and management (Sharp 2002, 11). Most trendy, incorporating the ever evolving topic of sustainability into coursework is utilized to train thoughtfully engaged citizens. Next, developing further the understanding of both the crisis we face as a planet as well as potential innovative solutions. However, at many institutions a small percentage of faculty members utilize their voice within the decision making realm of a university, and the same small percentage tend to be called on repeatedly to join committees and take action.

Though educators and students alike may focus on the classroom, campus staff play a more pivotal role within an institution's operations. Hard sustainability is most frequently implemented through the facilities staff, and a thorough understanding of current harm and potential innovations here can effect large scale changes throughout the entire community. Soft sustainability within campus and residential life hold the same role for enacting change within the culture of a community. Both are necessary, and each are significantly impacted by decisions made within a university's administration.

As a fundamental goal of universities is to educate learners, students must utilize their short stay on campus to develop the next step towards sustainability; a legacy that has often been passed to them by former students. Most universities are home to an environmental action club

or organization, which in spite of the continuous turnover, hold incredible power to incite change. Leidecker describes that any successful sustainability initiative would "need to start with the students, it has to come student driven. If they don't buy in, or if they even create the idea and pull it forward there's not a whole lot we in our staff positions can do" (Leidecker 2007).

However, students cannot enact change alone, and support from other university sectors is vital. "These students usually have no resources, limited understanding of how the university itself is managed and no immediate access to decision-making processes that they could directly influence… The tendency is for students to engage in short term activities that aim to raise the profile of certain issues and sometimes to embarrass the university into responding to popular demand" (Sharp 2002, 10). Though in many cases such action has led to short-term projects, Sharp writes that these actions tend to replace what might have been a "longer-term systemic transformation." Conversely, student leadership supported by resources and institutional understanding has in many cases led to the development of campus recycling centers, composting, organic or local food purchasing, sustainability coordinator positions as well as various other systemic changes.

Due to this high rate of turnover, documentation and story telling become not simply a means of recruitment and recognition but also a guide to those with energy to work in that field. One method, considered by Evergreen State College, is the mentorship of younger students by older students, therefore closing the vacuum of knowledge that occurs each time an advocate graduates (Parkes 2007). However, the development of a thorough and accessible history of sustainable action is critical so that new members can easily access information about what has already been attempted, incorporated, or developed. Often, this need is filled through the creation of a campus sustainability committee, which can act as both a story telling body as well as a knowledge base for future action.

Of all the universities interviewed, no two sustainability or environment committees were the same; however in spite of differences in purpose or function, each agreed on the need for such an organization. Through student initiatives, Presidential orders, or facilities necessity, committees are made of a combination of members ranging from just staff and faculty to students, alumni, local business owners and utilities representatives. Committees which lacked student members noted the need to have such voices at the table.

The purposes of these groups were varied, and included decision making and implementation of sustainable practices, story telling, documentation, research, networking, and in some cases fundraising. Of the committees which were seen as implementers, funding and staff support such as a sustainability coordinator were provided. For committees viewed as advisory or storytellers, focus is placed on diversifying membership as to widen the impact and input into such knowledge. At Lewis and Clark College, the sustainability committee, still working to transition from being an environmental council, is looked to mainly for networking as Proctor describes. “People are too busy and there’s too much going on. And these things that are going on aren’t necessarily aware of each other almost. So a lot of what we try to do is facilitate connections; we try not to reinvent the wheel, but really bring and bridge communities. And of course with this umbrella approach to sustainability hopefully that will reduce the proliferation, people can work together on coordinated activities” (Proctor 2007).

Among the many challenges sustainability committees face, many struggle to maintain commitment of membership as well as productivity. Seattle University’s Environmental Advisory Council, created at the request of a student, is a standing advisory council which has seen several transformations since its inception. The council is comprised of faculty, staff, a student, an alumni, and a representative from Seattle Public Utilities, and is chaired by a facilities based sustainability coordinator. As with many similar councils or committees, its first year was used mainly to gain an understanding of the issue within the campus, however council

turnover was high. The second year was spent persuading the President to sign the Talloires declaration, which he did not sign due to measures that conflicted with the Jesuit universities' mission. Because of this, in their third year, the council worked to develop a similar declaration which would be more accessible to Jesuit universities. This endeavor failed as well due to several factors. As an advisory council, its role relied upon the administration to implement the changes suggested. Lack of partnership within the Administration led to a loss of steam within the group itself. Members felt no ownership over the issue, and beyond attending meetings put little effort into the progress of sustainability initiatives. Karen Price, Sustainability Manager, recalls that "at the end of the year we kind of went through what our goals were at the beginning and what did we achieve, and we realized we hadn't achieved anything" (Price 2007). Similar challenges are faced by various other universities, exemplifying the need for collaboration across university communities. If an advisory committee is to be successful, it must be paired with active implementation among other sectors of a university.

Sustainability committees can and have been in many cases a uniting force for systemic change, and should be looked towards for ideas and resources. However, it is important to remember that a University cannot rely on one single person or one committee to implement such changes. Sustainability must be incorporated into all aspects of a campus from curriculum to dining services, and cannot end at the creation of a committee.

A University itself may also become a leader within its surrounding community or region, as previously discussed with Portland State University and it's incorporation into surrounding Portland. Allen describes that PSU is "a very engaged university, it's not an ivory tower. It really is defined by Portland, and is from undergraduate all the way through [PhD] has a very strong emphasis on commitment to service learning and partnership with community members around their needs. We're really committed to being relevant to this community in

sustainability" (Allen 2007). PSU believes heavily in both learning from the city as well as teaching to the city, being a follower as well as a leader.

Lewis and Clark College Professor Dr. Eban Goodstein, Economics Professor at Lewis and Clark College, has taken this notion a step further, as he leads a nation wide educational initiative titled "Focus the Nation." This initiative has committed over 1,100 institutions across the United States to draw the attention of educators and learners to the topic of global warming through nation wide teach-ins on January 30-31st 2008. Of the importance of such a wide scale action, Price writes that "It's not just awareness, it's what should universities be doing to help address this issue and what are some priorities from a policy standpoint and what are some priorities from an investment standpoint. So it's really trying to mobilize the campuses but in a very concrete way" (Price 2007).

Sustainable Leadership at Pacific Lutheran University

> *PLU seeks to empower students for lives of thoughtful inquiry, service, leadership and care – for other people, for their communities, and for the earth (PLU 2010).*

Clearly embedded within PLU's mission statement is a dedication to both social and environmental sustainability through the empowerment of students, which envisions the community as "part of the whole planetary life support system" (Sharp 2002). Beyond the mission, PLU's President Loren Anderson has continued to rededicate the community to further acts of sustainability, as the first President in the Pacific Northwest to sign the Talloires Declaration in 2004 and a member of the President's Climate Commitment Leadership Circle. However, PLU does not lack from leadership among other sectors of campus.

Each day it becomes increasingly difficult to document all the leaders within the PLU community working towards campus sustainability, as their numbers continue to grow.

Professor Jill Whitman (personal communication, December 2007) describes this phenomenon as a unique convergence of ideas, energy, people, and time. On the student level, the Residence Hall Association has created a position for an Environmental Justice Director, and each Residence Hall elects its own Environmental Justice Coordinator to its council. These leaders work within their halls to educate and promote advocacy, and their efforts recently led to collaboration with Dining Services on an in hall composting system. The Associated Students of PLU, the student government, fund a unique all student run Outdoor Recreation program which takes community members on excursions weekly to experience the northwest environment. Grass Roots Environmental Action Now, GREAN, is a student club on campus which organizes efforts among students to improve practices on campus. Their efforts in the past led to a paper purchasing policy of 30% post consumer waste content and more recently to a student initiative signed by over 1,100 students to purchase green tags on all PLU's energy. PLU students are engaged in the topic of sustainability, and work through research as well to improve it. Each year two students are selected by the Sustainability Committee to be Sustainability Fellows, who conduct action based research to promote campus environmentalism. This Provost funded fellowship is also an example of leadership within the academic sector; engaging students not only in actively working on the issue but also reporting on it through a final document such as this.

Faculty leadership, as previously discussed, comes in many forms. On the PLU campus, faculty work to incorporate green themes into their courses or further create courses around the topic itself. Examples of this include courses such as "Global Climate Change", "Conservation and Sustainable Development," "Energy, Resources and Pollution," and "Conservation of Natural Resources" as well as the Environmental Studies program. Several educators act as committee members as well, taking an active role in the direction of university operations. Eight faculty members sit on the Sustainability Committee itself, collaborating with students, alumnus,

and staff on various initiatives. Faculty, especially within the Environmental Studies and Geosciences programs, dedicate themselves to continued research on sustainability, as well as support student and staff research. The Sustainability Fellowship is supported by both a faculty and staff advisor, therefore each year two faculty work unpaid with a fellow on their research and projects.

With the most direct influence on campus operations, PLU staff continuously influence sustainable practices. Staff leadership has sprouted among various sectors and led to programs such as the Facilities led *Can the Can* project where offices trade in trash cans for a 1.5 liter green container. PLU's Facilities and Environmental Services Management continue to receive awards and recognition for their dedication to campus sustainability, and recently received the Washington State Recycling Association's *Institution of Higher Education Recycler of the Year* award (website http://www.plu.edu/~fama/environmental-services/home.html). Dining Services has also been engaged in the sustainable foods movement, and through the efforts of its staff members has invested in purchasing more local, more organic, and more sustainable foods as well as waste reduction through composting and recycling efforts.[3] Recently this resulted in a campus wide switch to *Pura Vida* coffee, a fair-trade, shade grown, organic coffee which supports social initiatives in coffee growing countries.

To further develop leadership in sustainability, the action portion of this fellowship focused on the training of student leadership. Each fall, selected students take part in a two-week common leader training program. The 2007 program included a focus on sustainability, most directly aimed at the Resident Advisors, or RAs, who hold incredible potential for modeling lifestyles of sustainability. Based on the *Lifestyle Project* (Kirk and Thomas 2003) developed by Karin B. Kirk and John J. Thomas, a PLU *Lifestyle Project*[4] was developed for the Residential Life Staff. Resident Directors, Residential Life staff, and Resident Advisors, selected two areas

[3] To learn more about PLU's waste reduction programs visit www.plu.edu/~fama/environmental-services. To learn more about Dining Services initiatives visit http://www.plu.edu/~dining/sustain.htm.
[4] For full text of the Lifestyle Project, see Appendix.

of their lifestyle they would target to make more sustainable. The two-week program was completed by RDs and the Central Staff in the month prior to fall common leader training so that they then could facilitate the same project for their RA staffs during training. During the project, target days were selected for individuals to focus on food, transportation, waste, water, or electricity. With the intention to train hall leadership on lifestyles of sustainability so that they may then model such actions for a broader community, much of the staff used the project to educate themselves and discuss the role of individuals in the movement. Though the project proved challenging for much of the staff, it served a purpose of raising awareness of individual responsibility. RD Sarah Allard recalled that "For me personally, this lifestyle project made me more aware of what I consume and how much of it is unnecessary. I'm now more intentional about turning off lights, recycling, and using less water."[5] RD Joey Weber adds, "I found myself thinking a lot about what was habit and what was necessary and realized how much of it was more habit than out of necessity… realizing that the small changes that I do and that I can incorporate into my daily life do add up more than I thought."[6]

Resident Directors acted as facilitators to their RA staffs, holding discussions on each target day about student progress, struggles, and thoughts. Weber notes that she was "impressed with the level of engagement that they showed after the initial discussion because many of them began to implement things on their floor and also encouraged each other to recycle more and helped educate each other on sustainable ideas. Again I think once they understood that it was more about their own awareness and implementing small things into their daily life and that no one expected them to be vegetarians they were able to engage with the material and topic more."

The *Lifestyle Project* was administered along with an optional breakout session on sustainable programming and waste minimization. Barb McConathy, Environmental Services

[5] Sarah Allard, e-mail message to the author, September 10, 2007.
[6] Joey Weber, e-mail message to the author, September 4, 2007.

Coordinator, facilitated a *Trash Bash,*[7] where leaders sort through actual trash collected in their halls and determine what that was thrown away might have been diverted from landfills. Following the *Trash Bash*, a discussion of sustainable programming and resources was led to help RAs and other student leaders incorporate sustainable practices into other themes of events.[8] The event worked with student leaders from various organizations around campus, and relied heavily on collaboration with the Environmental Services staff.

Leadership in the Future

Community based leadership is strong at PLU, as the above samplings show. However there is still much to be gained by focusing on leadership development in the area of sustainability. Most of the universities interviewed were home to a sustainability coordinator position, one which, like the sustainability committees, took on various different roles depending on its mission. Many coordinator positions began as hard sustainability coordinators, working mainly within facilities on recycling, waste reduction, or LEED innovations. More recently, these positions have been altered or paired with another position to include softer initiatives focusing on curriculum, student life, and leadership. The problem with having only a facilities based coordinator is that this often results, like in the story of the Only House, in hard sustainability changes working against a lack of soft sustainability approaches. Seattle University's Sustainability Manager, Karen Price, faces just this problem, expressing that "What we need is a champion, who really wants to be working on this, because I don't feel that it's my place being in facilities that I should be… creating programs for the students. I would love to partner with someone because I have the knowledge… but it seems like I can't do it without the student support" (Price 2007).

[7] See Appendix for documentation.
[8] For full details see RA Programming Guide in the Appendix.

The converse problem occurs in having only a curriculum or only a student life based coordinator, where the soft approach is not paired with a hard approach. To avoid this challenge, ideal coordinators would be based outside of each, focusing on bridging connections rather than accomplishing the direct tasks. This coordinator would work with a sustainability committee, where each sector is represented, and build initiatives from there. Another option, shown by Portland State University, is the pairing of a facilities and operations based coordinator with an academic and curriculum based coordinator under the umbrella of the Center for Sustainable Processes and Practices. However, ideally a third position would be added focusing on student life and leadership.

As was described in regards to the sustainability committee, it is important that a coordinator position not be viewed as being responsible for *all* sustainability on campus (Allen 2007). A coordinator is responsible for building connections and collaboration between different aspects of campus and sustainability. Allen describes that "One of the challenges of the job is that my job is to help other people do their jobs, or help businesses be more successful. So I couldn't take credit for it myself, because ideally what I was doing wasn't actually doing the stuff it was making it possible for them to do it" (2007). If done successfully, sustainability becomes incorporated into all aspects of a university, and the coordinator position is no longer essential because sustainability itself becomes sustainable.

Though leadership in sustainability at PLU is on the road to full integration into all sectors, it is highly recommended that a temporary sustainability coordinator be hired to enhance and facilitate this transition. As described, this position would be based outside of facilities and faculty realms so that it may transcend each of these borders to more fully coordinate changes. The already active Sustainability Committee would provide support and direction for such a position, paired with a ready and engaged campus awaiting the facilitation of all its many sustainability endeavors.

EDUCATION

> *[A]ll education is environmental education. By what is included or excluded, students are taught that they are part of or apart from the natural world (Orr 1992).*

Educational institutions bear the responsibility of informing all sectors of its community, both formally and informally, about sustainability. Curriculum based education, as noted within faculty leadership, is a formal route to develop a system based understanding of our role in and human responsibility to the world we live in. Universities address this need through program development, such as a degree or certificate in environmental studies, through inclusion of such topics within general university requirements by addressing sustainability within other topics, through the creation of individual courses relating to the topic, or a combination of all three.

The development of undergraduate or advanced degrees in environmental studies appeal to those wishing to work specifically in the field of sustainability. However, incorporating themes of sustainability into already existing coursework are effective to applying such topics into all sectors of a university as well as society. For example, if business students are taught to apply the triple bottom line, which takes into account environmental, social, and economic resources, within their concentrations or studies, then future business owners who may not have a particular passion for sustainability may still have the necessary understanding to develop a green business. Though engineering students may not chose to gain a certificate or degree in green building, if their coursework includes interdisciplinary theory or practice in Leadership in Energy and Environmental Design (LEED) Certification, then that grounding may be applied to future projects professionally. Portland State University works with this mindset, “rather than creating a separate sustainability effort [they] wanted to make sure that the strategy was to

diffuse sustainability and infuse it across the campus" (Allen 2007). The University of Puget Sound provides workshops for faculty to begin integrating such topics into various disciplines. Coursework, in many cases, provides many opportunities to introduce students to topics of environmentalism.

Within Universities who engage in the hard approach to sustainability, physical changes to a campus provide opportunities for formal as well as informal learning. Reed College, for example, is home to an ongoing canyon restoration project. "There's an awareness with the restoration, and then a lot of biology classes use the canyon as well and test the water and do their thesis on issues like salmon" (Fisher 2007). In many cases Universities do not take advantage of these learning tools. Price explains that although Seattle University has a highly functioning composting unit located directly on campus, very few students even know it exists. Engaging students in campus projects related to sustainability can provide hands on experience to learners as well as energy to the projects themselves. One tool for bridging this gap is the development of research opportunities.

Student, faculty, and staff research enable a university to support efforts which apply directly to the sustainability goals of the institution. Sustainability committees can serve as the focal point for campus research on sustainability, shown by Lewis and Clark, Portland State, University of Puget Sound, Western Washington, and Pacific Lutheran University among others. In these cases, either resources or funding is provided to community members to promote research based initiatives on campus. Western Washington University's SEED program works to build connections between departments or sectors of the university which may not automatically be considered potential sustainability advocates. A recent student project engaged the physical education department to help students see the health reasons behind not riding the elevators on campus. Students educated their peers about the health benefits as well as the time

difference between using the stairs and using the elevator, and persuaded a majority people away from the elevators (Vidaña 2007).

Portland State's Center for Sustainable Processes and Practices works with Portland community members to tie student and faculty research to the needs of the surrounding area. The Center's staff works to "facilitate faculty to create partnerships with community members around research needs or to help grow curriculum. So to not become a large institutional unit ourselves but to be the coordinating, supportive, facilitative leadership function while leaving most of the resources where they are, not taking them away from existing programs" (Allen 2007). This program has received funding from its Administration to provide interdisciplinary faculty grants of up to $10,000 for such research.

Sustainable Education at Pacific Lutheran University

Pacific Lutheran University works to integrate sustainability studies both formally and informally into the education of students. Within curriculum, community members have continued to enrich the interdisciplinary environmental studies major and minor which draw heavily from hard sustainability on and around the campus as teaching tools, viewing the "campus as a living laboratory." Environmental concepts are increasingly woven into other studies as well, including philosophy, religion, marketing, political science, international studies, and biology (McKenney et al. 2005).

Informally, students have the opportunity to hear speakers such as David Orr or Sandra Postel (McKenney et al. 2005), to take part in annual recycling events and energy competitions between halls, to take a self guided tour of LEED Certified buildings on campus prompted by informative signage, or to become Climate Change Ambassadors working to educate the campus during January Term for *Focus the Nation*. Extending into a broader community, the campus sponsors alternative spring break experiences, all themed around social and environmental

sustainability and in 2008 joins eight other area universities in the first annual Tacoma Sustainability Summit.

To engage the campus further with informal education, several forms of outreach were launched as part of this project. Within Residential Life each year a *Sharing Your Home* contract is created to aid new roommates to address potential conflicts. For the 2007-2008 contract, used mainly by first year students, a series of questions were added themed around lifestyles of sustainability.[9] These questions served the purpose of both engaging students in the consideration of their individual role as well as allowing roommates to consider ways to make their lifestyles together more sustainable.

To reach a wider readership, a *Green Tip of the Week* has been submitted weekly to the PLU student run newspaper, *the Mast.* Tips included facts about the role of universities in pollution, waste, and energy as well as individual lifestyle based solutions to affect them. In the fall of 2007 the tip appeared once a week helping students engage in acts of sustainability in their everyday lives.

After the results of the common leader training *Lifestyle Project,* a similar program was designed to be administered by various offices around campus. However, after input from staff and faculty, the program has developed into a checklist based assessment of office sustainability, to be led by administrative assistants within departments. Rather than focusing on lifestyle changes, the checklist will focus on purchasing, energy use, waste, and transportation within the business day.

Education in the Future

Unique to sustainability, "trade secrets" are generously made communal with the hopes that the setbacks or successes of one institution can be shared for the benefit of others.

[9] For full text of questions, see Appendix.

Throughout this fellowship it has been a gift to learn from so many others working to promote campus ecology. As a result, it has been a wish to continue sharing that information.[10] This sharing of experiences and ideas is essential to the spread of sustainability, not just within universities but into broader national and international communities. Universities must view themselves not only as a tool to educate students, but as a means to educate the human population of our role within this environmental and social system. This calls for the facilitation of further conversations between universities, the continued learning and sharing of ideas and efforts, and the continued collective support of both formal and informal educational initiatives.

HARD APPROACH

> *While teaching and scholarship must begin to reflect these issues, so that students learn how to think in a more integrative fashion, there is an emerging consensus that institutions must also model sustainable practices (Clugston and Calder 1999, 625).*

The Hard Approach can be seen at most universities in the northwest, with LEED certified buildings, energy efficient retrofits, and a well managed recycling or even composting system. However, as Sharp wrote, "it is critical to differentiate between project success and institution transformation" (2002). Though individual project victories are a step along the way towards a systematic transformation, the two must not be confused. A University takes the leap between specific sustainable projects such as one LEED certified building to a sustainable institution when its policies and procedures dictate a continuous dedication to LEED, alternative energy, and other forms of hard sustainability. Though it is clear that Universities in the

[10] To see text of submissions to the Spring NASPA Conference, see Appendix.

northwest take this challenge of the hard approach to heart, systematic soft sustainability is much harder to foster.

Though hard approaches are not the focus of this document, it is important to acknowledge that physical changes are necessary to make soft changes fully effective, and that converse is true as well. Universities across the northwest are developing hard sustainability through micro wind turbine demonstrations (Allen 2007), the purchasing of 100% renewable energy, rooftop or community gardens (Trotter 2007), on site composting (Price 2007), LEED Certification, and sustainable food contracts (Allen 2007). A University must first model sustainability in order to educate its community members about environmental concerns (Clugston and Calder 1999, 625). Much emphasis is placed on these hard changes, however it is important that each be paired with a soft approach as well; addressing how to *live* within a sustainable community.

At PLU

At Pacific Lutheran University, sustainable practices have been integrated to begin an "institutional transformation," as Sharp describes. PLU's Master Plan dictates that "all new buildings should achieve LEED certification, with a goal of LEED silver" (PLU Master Plan). Award winning waste reduction and dining services efforts, as discussed in regards to staff leadership, continue to support and encourage sustainability as well. To supplement intended soft approaches, two hard changes were implemented within this fellowship; a reduction of trash cans within residential halls as well as the addition of in-hall composting bins.

Residential Life, as most departments on the PLU campus, actively pursues ways in which to develop a more ecologically friendly living environment for its students. While discussing potential soft changes to support their work, the waste element of halls needed to be addressed. In order to promote food composting, the infrastructure needed to be developed to

support it. The innovative idea for PLU's in hall composting program was first piloted by an Environment, Justice, and Diversity Coordinator, student Graham Logan. Logan collected post-consumer compost from his hall and hand delivered it to Dining Services, where a pre-consumer composting collection is already implemented. A similar program was developed at Reed College, with a dozen students engaged in compost collection. Learning from the experience of Reed and Logan, collaboration with Dining Services, Residential Life, and the Residence Hall Councils produced a campus wide in hall composting program. Composting bins were purchased for each hall, number dependent on population, and placed within a main kitchen. When bins are full, Environment, Justice, and Diversity Coordinators organize the transfer of compost to Dining Services where they are given a clean bin in return. The campus wide program is in its first year, however has already been successful enough to warrant the purchase of more bins to extend the program to more kitchens.

Further discussions with Facilities Management, Residential Life, and the Residence Hall Association led to a reduction of trash cans within campus residence halls. Previously, each room contained one recycling bins and two trash cans. To supplement campus wide waste reduction initiatives, the second trash can from each room was removed, leaving one recycling bin and one trash can.

The Future

PLU's Facilities Office is led by champions of sustainability, as described in staff leadership. However, it is important to continue developing and documenting campus wide expectations for purchasing, growth, energy, and transportation. Sustainable practices must be built into each sector of campus, regardless of title, rather than laying full expectations for hard sustainability on the shoulders of a few; for institutional transformation demands the attention of entire institutions.

SOFT SUSTAINABILITY

The creation of communities which foster sustainable lifestyles, education, and leadership is developed through a human element, by the people involved. Soft sustainability requires a dedication to capacity building among individual community members and the community as a whole. Many of the above describe projects fall under the umbrella of *soft sustainability*, such as leadership development, community building, training, education, and lifestyle changes. Universities have approached soft sustainability through broad scale events such as Seattle University's sustainability challenge, or competition, as well as through the alteration of current procedures to develop more ecologically friendly attributes, such as Evergreen College's Sustainable Checkouts or the University of Puget Sound's Zero Waste Orientation Picnic. Many use prompts to remind community members of their commitments, others allow flexible work schedules or telecommuting to support alternative forms of transportation. All are effective, as all approach sustainability from the role of individuals and their personal everyday choices.

The role of a university in soft sustainability is mainly in how it breaks down barriers to achievement for community members. It is essential to both recognize and address barriers to individual lifestyle changes. For many this barrier is embodied by a fear of no potential impact on the larger crisis, addressed mainly by a sense of community and feeling of ownership. For others, impressions of the difficulty, cost, or image of sustainability may keep individuals from achieving it. Communities, in particular Universities, play a crucial role in educating individuals about the truth behind these perceived barriers. This role can be enacted through various forms of soft sustainability. Four such forms will be addressed here: challenges and programs, integration into existing programs, prompts, and support.

Challenges and Programs

Direct programming on sustainability is a common practice to engage those already involved in a topic as well as those who are interested in learning more. A common form of this is through challenging community members in a competitive manner to alter lifestyles through competitions. Modeled by Seattle University, a sustainability challenge focuses on individual improvement in lifestyles. Participants at Seattle University were placed on teams of four to provide community and support to their efforts, as well as score keeping based on the honor system. Throughout the six week event, students, faculty, and staff took part in daily, weekly, and one time activities themed around sustainable lifestyles. Daily actions were repeated each day, such as brushing teeth or traveling to school. Weekly actions were those done approximately once a week, such as laundry. One time activities were those that need only be complete once, such as removing your name from the junk mail list. To compliment these actions, the Environmental Advisory Council hosted a series of workshops and events focusing on campus sustainability. Points, based on progress as well as attendance at events, were themselves awarded by gift certificates to sustainable companies (Price 2007).

Informative programming which connects to informal educational, seek to inform participants about a topic or temporarily include them in the process. The University of Puget Sound's Ecofest is an example of such programming, with a week long series of environmentally themed events such as outdoor recreation trips, movie screenings, making recycled paper products, and informative panels (University of Puget Sound). Both challenges and broader programming around sustainability engage community members in the practicality of sustainable lifestyles outside of the classroom. However, participants tend to be those already engaged or interested in the topic of sustainability, and may not be as effective in attracting new members to the cause.

Integration into Existing Programs

Incorporating sustainable practices into already existing programs allows a university to cater to a broader and more diverse audience who may not already be engaged in sustainability issues. Whether by purchasing recycled or organic products for an event, requesting participants to recycle or compost all waste from the program, or by bridging the gap between the theme of an event and its sustainability counterpart, all university events or programs can incorporate sustainability.

At the start of each term, it is common to host orientation events for new students and their families. These events tend to include an increased level of waste for a university. Therefore, integrating sustainability into these events can serve a dual purpose of reducing waste as well as introducing new students to the sustainable practices of your community. At the University of Puget Sound last year, 2,000 students and family members were served and participated in a *Zero Waste Picnic.* Campus leadership were stationed throughout the picnic to assist in the proper waste diversion. With help from the City of Tacoma Environmental Services staff, unnecessary waste was reduced by selecting food products with low packaging, and all but one small bag of trash was diverted into composting, recycling bins, or reuse.

Evergreen State College is in its third year of a housing option for those students interested in sustainability. Many applicants grew up with the topic in their households or in their lifestyles, however many choose to live in the Sustainability House simply to learn from others on how to live greener. Evergreen's Residential Life staff focus on "supporting the students and meeting them where they are" (Parkes 2007), so when students began pushing for a sustainable living option, the staff dedicated itself to developing it. The house itself works with a theme of sustainability each month, ranging from setting norms, food, energy, waste, transportation, social or political sustainability, and even green businesses. Each year more

students apply to live in the Sustainability House, and to meet this demand the staff continues to expand the program both in size as well as focus. In the future, the staff would like to pair the living arrangements with a formal educational element as well.

Though not all campuses have a green wing or sustainability house, many are working to build aspects of sustainability into the resident experience. Many universities share a check out or end of the year experience, where students discard loads of cloths, appliances, and other goods that they either don't want or no longer need. These goods in some cases find their way into landfills across the nation. Alternatives to this process have been developed to promote social and environmental stewardship, advising students that their waste can be used to create good. At the University of Puget Sound, students have an assortment of options for their unneeded items; mixed material recycling or donation collection tents. At Evergreen the collection of donated materials became so sought after by local charities that organizations began sending pods for household goods, cloths, as well as food to be collected. Organized staff and students work at the end of the year to wash all donated clothing and arrange delivery of the goods.

Prompts

Effective prompts work with ideas and habits already planted in a community, and serve more as reminders than the actual creation of a new habit. For example, Evergreen's waste bins are marked with signage stating where the waste will go rather than what it is called. Instead of reading "trash," community members see that whatever they put in the trash bin will be sent "to the landfills." The University of Puget Sound as well as Reed use prompts next to light switches reminding users to turn them off when not in use. Such uses of prompts can be highly effective to *remind* community members of the commitments they are trying to keep, but cannot be relied upon if they are the sole means of enacting change.

Support

Beyond educating and reminding community members about issues of sustainability, it is important to minimize perceived barriers to actual habitual change as well as support those efforts made. In other words, a university should make it easier to live sustainably than it is to live otherwise; this is done through measures of support.

A research student at Portland State University did a study of surplus goods as well as needs within campus offices. The result was a charted understanding of how systemic a university *can* be. The surplus of one office was often the need of another, and by bridging that gap a university not only saved the time and energy it would have taken to purchase those products but also diverted potential waste from a landfill. This project was developed into a free office supply exchange program titled *PSU Reuses,* located in a central *Reuse Room* (Allen 2007). At PSU, it is easier to get office supplies from this room than to purchase them out of ones budget.

Transportation is often seen with the largest number of barriers, however much of these aspects a University has control over by providing incentives for alternative forms of transport. More convenient parking spaces can be reserved for carpoolers, flexible work schedules can be arranged to facilitate public transportation, telecommuting, or biking, and arrangements can be made with local public transportation to improve accessibility or safety to and from a bus stop.

Portland State University has developed a comprehensive sustainable alternative plan to driving a private car. Flexible work schedules are agreed upon so that should staff ride public transportation at convenient times, they can come into work at untraditional times. To compliment this, PSU is graced with a speedy and frequent bus and tri-net service, popular among students, business people, tourists, and residents alike. For those who wish to ride their bikes to work or class, PSU is building a transportation center to include a bike corral, bike

locks, and a shower and change room. Once at the university, community members have access to Flexcars,[11] which are rented by the hour (Allen 2007).

Evergreen is also working to improve alternative transportation use, with the goal of simply getting people out of their cars. Local bike trails are being connected to campus trails, a lane on the campus parkway was eliminated to provide bike and pedestrian space, and students recently taxed themselves for universal bus passes.

Reed College's Student Services facilitates a volunteer student staffed Bike Coop, which rents to bike-less community members for periods of time ranging from one day to a year. Made possible by donated or forgotten bikes on campus, the service includes a helmet as well as any needed bike repairs throughout the period of rental. Portland State, Evergreen, and Reed continue to develop alternative transportation options making it simpler, more cost effective, and easier to go green than to drive a car.

Challenges and programs, integration into existing programs, prompts, and support are not the only ways a University can incorporate sustainability into its community or inspire green lifestyles, however when performed together can implement real change.

At Pacific Lutheran University

PLU's active student body, staff, and faculty have widely accepted sustainability as a focus of the campus, however much effort is still needed to incorporate those ideas into everyday lifestyles and activities. As previously described, the community has received several awards for waste reduction and increased recycling, which is paired with a surplus sale similar to *PSU Reuses*, organized by the Environmental Services staff. Carpool spaces are located in convenient and central locations, heavily discounted bus passes are provided to qualifying

[11] To learn more about the Flexcar program, visit http://www.flexcar.com/.

community members, and the Campus Safety staff runs a free escort fleet to the campus and surrounding area. Further, the Sustainability Committee continues to develop a more comprehensive alternative transportation option, to include flex car, a bike coop, as well as wider accessibility to discount public transportation passes. Still, capacity building of individual community members must be a theme to accompany broader hard sustainability.

To address this need for soft sustainability, several programs or support systems were developed as part of this fellowship. The *Green Leaf Challenge*[12] was modeled after Seattle University's *Sustainability Challenge* as well as PLU's *Wellness Challenge*[13]. The challenge, sponsored by the Residence Hall Association, focused the campus for six weeks on different theme of sustainability, including transportation, electricity, water, food, waste, and overall lifestyles. Similar to Seattle University, daily, weekly, and one-time actions were suggested and a chart was provided to track progress or struggles. Once a week, participants would join in a campus wide event focusing on the theme of the week. However, timing of the *Green Leaf Challenge* proved not to flow with the campus schedule, and the program has been tabled for future use.

To integrate sustainability into already existing programs, Student Involvement and Leadership and Dining Services collaborated to transform the yearly orientation picnic into a sustainability picnic. Learning from the Zero Waste Picnic run by the University of Puget Sound, staff and students worked to select low packaged as well as low processed, organic, and when possible local foods. All plates and packaging used were compostable, recyclable, or reusable, and the Associated Students of Pacific Lutheran University volunteered at the event helping 1,600 community members and their families divert their waste to the correct bins.[14]

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[12] To view the full program plan for the Green Leaf Challenge see Appendix.
[13] To learn more about PLU's Wellness Challenge visit http://www.plu.edu/~liveit/live-programs/wellness-challenge.html.
[14] See Appendix for documentation.

The Future

Although PLU's community is working hard to develop more sustainable programming, there is still much to be learned from other northwest Universities. At the end of each year, PLU places donation bins in each residence hall along with trash pods. Although the option of diverting items from landfills is present, it is not utilized to its fullest. By promoting where products will be donated, and by increasing barriers to simply throwing items away, this check out process can be made more sustainable as modeled by Evergreen. The ethic of sustainability has been planted within individuals; however consciously changing a habit is more difficult. Reminders, or prompts, such as those used at Reed or Evergreen, would help PLU remember what impact every action has on our world.

CONCLUSION

Although community building, education, leadership development, hard and soft sustainability are individually critical to create systemic change within universities as well as broader communities, together they hold potential for impacting or reversing the degradation of our planet. In approaching this topic, keep in mind that while an individual may instigate change, they alone cannot be a critical driving force. Individuals may educate, inspire, and lead; but communities have the power to make sustainability sustainable. Efforts rely on collaboration, without which none of the university projects described above would have been possible. Action based research relies upon the broadening and inclusive nature of programming, which brings not only new energy but also new ideas or approaches to an initiative.

> *"PLU has a culture that includes communication, strong interdisciplinary academic programs, and an ethic of stewardship, which facilitate incorporation of sustainability throughout campus. (McKenney et al. 2005, 1)*

PLU's sustainability endeavors began when emphasis was placed on community, vocation, and "lives of thoughtful inquiry." Through the leadership of many, this community creates an abundance of collaborative energy for sustainable action among each sector. These efforts must continue to receive the support and recognition they receive now. Further, PLU must continue to learn from and share with the universities and communities around it, with the knowledge that those educated within a sustainable community can one day share that information with others. As one colleague from another university said, this chain reaction is "one of the exciting things about this topic… anything we tackle…, is something that students can take out into the world and becomes a template for other places" (Parkes 2007).

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Appendix A: 2007 Fall Common Leader Training Trash Bash

Appendix B: 2007 Orientation Zero Waste Picnic

Appendix C: Campus Voice Article “Two Students Named Sustainability Fellows”

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TWO STUDENTS NAMED SUSTAINABILITY FELLOWS

May 11, 2007

Juniors Kyle Morean (pictured) and Tamara Power-Drutis were named the 2007-2008 Sustainability Fellows last week.

Awarded annually by the Sustainability Committee, the fellowships give students an opportunity to further PLU's sustainability effort on campus by researching existing practices and the use of resources on PLU and at other college and university campuses.

This summer, Morean and Power-Drutis will be working on research projects related to residential life. Both of the projects were proposed by Tinglestad's resident director, Courtney Bailey.

"A lot students don't know a lot of ways to live sustainably in the residence halls. It can be a challenge," Bailey said.

Bailey said she's noticed a gap within the student body. A lot of students don't know what "sustainability" means or what sustainable living looks like. Bailey hopes the fellows can develop new techniques and tools to bridge that gap.

Morean and Power-Drutis will be working on different aspects of residential life. Morean will evaluate PLU's sustainable practices regarding renovations to residence halls, while Power-Drutis will concentrate on reforming residential life programming. The two also plan to create an educational campaign targeting students, Bailey said.

"The idea is not only what we can do on the technical side, but what campaigns we can develop to elicit student interest," Morean explained.

The actions taken by PLU to care for the environment aren't always accessible to students, Morean said. For example, the Morken Center has been touted as one of PLU's biggest achievements. Students have been told about the cutting-edge geothermal pump system that regulates the building's temperature without fossil fuels, but students have no idea how the system really works.

"We need to educate students about it, so they can take it out with them and use it in the future," he said.

In making all of PLU's sustainability efforts accessible to students, they will be more likely to incorporate the same ideas into their lives after graduation, Morean said.

For his project, Morean will analyze last summer's makeover of Foss and Pflueger Halls to determine what improvements worked and what more can be done, along with evaluating what other colleges in the region are doing, he said. His results will be applied to future residence hall renovations.

Morean lived in Pflueger Hall for two years before the building's renovation, and he was amazed to see all the improvements after the overhaul. He was drawn to this particular project because he recognized that many students, especially freshman, didn't realize the drastic change.

Meanwhile, Power-Drutis' project begins by reforming the annual training session for resident assistants held by residential life staff in August. The two-week training prepares the students to be effective leaders, but it also produces an excess of food and paper waste, which isn't environmentally friendly, Power-Drutis said.

"A lot of research that is done is done without the expectation that anyone will do anything about it," Power-Drutis said. "It's exciting to be researching ... exciting because what I do will be done in training next year."

In addition to finding ways to reduce the amount of waste produced during the training, Power-Drutis will work with residential life to create new programming with an underlying theme that promotes sustainability. The programming will educate student leaders about how to live a sustainable life and create hall programming focused on the same topic.

"There are ways student leaders themselves can live more sustainable lives to set an example for others," she said. "I really do think student leaders set the tone for the rest of the year."

Power-Drutis said she was drawn to this project because she has worked in residential life for the past two years, first as a resident assistant in Foss Hall and then as the resident assistant with additional duties in Harstad Hall. Since she's experienced the training before, she's in a good position to critique the process, she explained.

While completing their research, the students will work closely Bailey. Morean will also collaborate with communication professor Amanda Feller while Power-Drutis works with geosciences professor Jill Whitman.

Learn more about the Sustainability Committee and the fellowships at www.plu.edu/~sustain.

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Appendix D: Campus Voice Article “Students make ‘GREEN’ Living Accessible”

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STUDENTS MAKE "GREEN" LIVING ACCESSIBLE

July 27, 2007

Sustainability Fellows Tamara Power-Drutis and Kyle Morean are working to make sustainable living more accessible to students living on campus.

Many students have no idea what "sustainable living" really means, Morean said. And few are aware of all the things PLU is doing to reduce the university's carbon footprint.

By incorporating information about environmental stewardship into existing programs and events and by supplying students with resources about how to live more sustainably, Power-Drutis and Morean hope to educate and equip students to live green even after they leave the Lutedome.

"At the core, the basic definition of sustainability is broad – it's not just being green or recycling really well," Morean said. "And you're not really doing sustainability if it's just on the insular campus."

Power-Drutis is educating residential life and other student leaders on the subject during training events. The goal is that those leaders will spread the message by incorporating information about sustainability into their programming and events, she explained.

She's currently working on creating the RD/RA Lifestyle Project, based loosely on an Environmental Sciences course. Residential life leaders will evaluate their use of resources, and then learn how reduce their use of water and electricity, as well as make more sustainable choices about food and transportation.

Additionally, the First Year Picnic during Welcome Weekend will produce no waste. Everything from lunch bags to the silverware used will be recycled, reused or composted. No trashcans will be available at the picnic, and student leaders will be on hand to explain why.

"If we get students engaged right when they come to campus, we can put new habits in place," Power-Drutis said.

She is currently working to create a guide to shopping green in the Tacoma area and ways to live green on campus. Both will be available to the campus community at the beginning of the year.

While Power-Drutis has focused her efforts on educating the student leaders, Morean has concentrated on evaluating recent residence halls renovations. He's looking at the effectiveness of the renovations, as well as ways to educate students about the changes and create a guide for future renovations.

"I want to use T-stad, Foss and Pflueger as models of how we can use the new facilities to be interactive learning tools," Morean said.

Though the two are working on separate projects, they've found much of their research overlaps. They teamed up to visit regional colleges and universities who are leaders in the

Though the two are working on separate projects, they've found much of their research overlaps. They teamed up to visit regional colleges and universities who are leaders in the movement, such as Seattle University, Western Washington University, Lewis and Clark College and Portland State University.

At each school, they met with the students, faculty or staff to learn what else is being done and how PLU stacks up. They found the support the sustainability movement receives at PLU from students, faculty, staff and the administration is unique.

"We realized we needed to praise PLU," Morean said.

Compared with other inner-city schools, like SU and PSU, PLU students are much more involved in the movement. Additionally, PLU is the only school they've visited so far that provides opportunities for students to research subject.

However, Morean pointed out the fellowship has limits, as it's hard for students to make a sustained impact over the course of just one year. Additionally, various departments are adopting sustainable practices, but no one person is overseeing their actions and determining how they fit into the bigger picture, he explained.

To that end, Morean and Power-Drutis recommend the creation of a new sustainability coordinator staff position. Without it, Morean fears the campus sustainability movement may collapse in the future.

"We need to take a proactive position to find someone to keep it all together," Morean said.

In the few short months they've been researching sustainability on campus and elsewhere, they've identified a host of projects and areas that need attention. In their final report, they will be recommending future areas of study.

"I don't think there will ever be a lack of things to do with regard to sustainability," Power-Drutis said.

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Appendix E: Campus Voice Article “Living Green on Campus”

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LIVING GREEN ON CAMPUS

October 19, 2007

Six faculty members, 19 staff members, 59 students and 10 groups. Through the liveGREEN Pledge, all have promised to live a more sustainable lifestyle by taking small steps to lessen their impact on the environment.

The pledge, the brainchild of ASPLU vice president Tamara Power-Drutis (pictured), was born out of the Sustainability Fellowship she received this past summer. Awarded annually by the Sustainability Committee, the fellowship enables students to research ways to improve sustainability practices on campus.

Power-Drutis chose to focus her research on individual responsibility. The liveGREEN Pledge first has individuals, committees or organizations take responsibility for their actions that adversely impact the earth. Then they agree to take small, manageable steps to lessen that impact.

"There's this big idea of sustainability, and it can be incredibly overwhelming," Power-Drutis said.

In her research, she found that people who encounter big issues react in one of two ways: either, they lose hope and take no action, or they work hard and enact change. The distinguishing factor between these two reactions is the presence of a supportive community. If a person feels supported by others, they are more likely to work to enact change, she said.

Thus, the liveGREEN Pledge was born. It's a community effort. Those who pledge must agree to make changes in five areas of their lives. These include reducing, reusing or recycling the waste they create, conserving energy, eating sustainably, becoming an eco-friendly traveler and experiencing sustainability as a member of the PLU community.

"We all can affect change in our personal life," Power-Drutis said. "And we're all working on similar steps."

The little changes made by many people in each of the five categories will have a greater, more positive impact on the environment than huge changes made by a few, she explained. Plus, a larger group creates a community of people supporting one another and holding each other accountable.

News of the pledge is slowly spreading across campus through word of mouth. Power-Drutis chose not to launch an extensive advertising campaign about it because, once again, her research showed word of mouth was the best way to promote it. It allows a more personal approach, she explained.

While students are a target group to take the pledge, Power-Drutis said it's more important for faculty and staff to sign on. Students may make up the majority of the campus community, but most are only around for four years. Faculty and staff, meanwhile, remain at PLU for longer stretches of time and make an impact every day in their interactions with students.

"Their impact is more. Faculty impact students through their courses," she explained.

PLU isn't breaking any new ground with the pledge. About 10 other universities and colleges have enacted similar public pledges. Most are simple statements. PLU and Harvard University's are the only two that provide steps to lessen your impact on earth.

"We chose tangible steps by combining some general tips with the biggest areas affected, the areas where theses little steps had a big impact," Power-Drutis explained.

The steps were important to include because they educate the individuals and groups who agree to live more sustainably how to do it, she said.

Senior Paige Dofton, who took the pledge, agrees the steps are valuable. As people fill out the form, they begin to realize what steps they already take and those that would be easy to incorporate.

Dofton said signing the pledge hasn't involved many changes in her lifestyle. Most of the practices – recycling, walking instead of driving and buying local and organic food – are things she already does.

"I would love to see more people sign up," Power-Drutis said. "There's always room for more."

University Communications staff writer Megan Haley compiled this report. Comments, questions, ideas? Please contact her at ext. 8691 or at haleymk@plu.edu.

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Appendix F: Campus Voice Article “J-Term Program Takes on Global Warming”

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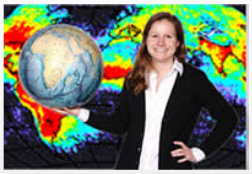
J-TERM PROGRAM TAKES ON GLOBAL WARMING

November 09, 2007



Ever since Al Gore's film "An Inconvenient Truth" hit the airwaves, the issue of global climate change has been a hot topic in America.

This J-Term, the topic will be the focus of the Climate Change Ambassador program. Created by Claire Todd, visiting assistant professor of geosciences and environmental studies, and Tamara Power-Drutis, a Sustainability Fellow, students in the program will explore the most recent data on climate change and devise creative ways to educate the PLU community.

Students of all majors are encouraged to join the program and no previous science experience is necessary. Todd hopes students from a wide range of backgrounds will participate. Applications can be found at the Sustainability Committee's Web site. Completed applications should be emailed to Todd at by Friday, Nov. 30.

Todd will hold an initial meeting with program participants during the first week of December. During J-Term, the group will meet Wednesday evenings. The first task will be to review evidence for recent climate change that has been collected by the Intergovernmental Panel on Climate Change (IPCC) over the past 20 years.

In 1988, the United Nations and World Meteorological Society created the IPCC, an international group of scientists who have collected and evaluated data on climate change from around the globe. The group's most recent report was released in 2007. In it, the scientists agree that global warming is unmistakable, and they are 90 percent confident that the majority of the warming is due to human actions, Todd explained.

Unlike the scientists, much of the American public isn't quite convinced.

"The Climate Change Ambassadors will address the fact that most of the public has a misunderstanding about climate change," Todd said. "PLU takes pride in its global perspective and in its commitment to sustainability and service. This program is about PLU acting on those priorities and taking the lead in combating the misconceptions about climate change.

"These students will represent the first group of leaders, who have reviewed and understand the data, and who are prepared to communicate that evidence to others."

Todd will work with the students to understand the primary evidence, recommendations and predictions collected by the IPCC. They will look at recent developments on the topic and examine why scientists are so sure humans are impacting the global climate system. Students will also talk with their friends, family and others to determine common misconceptions on the topic.

"These are misconceptions that we all have, so it's not a witch hunt," Todd said. "By finding the missing links, we're identifying how to bridge that gap."

The final step of the group's J-Term work will be to devise creative ways to communicate the correct information and combat those misunderstandings. At the end of the term, they'll present what they learned to Todd's J-Term course, a class for first years that examines climate change over millions of years. The ambassadors will also be a part of PLU's first Focus the Nation event on Jan. 31.

Focus the Nation is a national effort working to bring the issues of climate change into the spotlight. On Jan. 31, schools across the United States will host seminars, speakers and teach-ins on the topic.

Unfortunately, Jan. 31 marks the final exam day of J-Term at PLU, so the university won't be hosting any large-scale event, Todd said. However, the ambassadors will unveil a "physical embodiment" of the things they learned during the month on that day.

The final project is still up in the air, but Todd muses it could be a mural, a sculpture, a video or a question-and-answer board. Regardless, it will be a permanent fixture that continues to inform the campus community, she said. Depending on the interests of the ambassadors, outreach to the greater community is also possible.

Climate Change Ambassadors will also be invited to participate in Earth Day activities and in environmentally-themed classes during the spring semester.

"The program will educate the next generation of leaders," Todd said. "Whatever our vocation is, we are all affected by this."

For more information, contact Todd at toddce@plu.edu or ext. 5163.

University Communications staff writer Megan Haley compiled this report. Comments, questions, ideas? Please contact her at ext. 8691 or at haleymk@plu.edu. Photo illustration by University Photographer Jordan Hartman.

Appendix G: The liveGREEN Pledge

liveGREEN Pledge

Individual Pledge

First Name:

Last Name:

PLU ID Number:

PLU Email:

Do you live on or off of the PLU campus?

How did you hear about this program?

Take the pledge:

I pledge to lead a more sustainable lifestyle, which takes into account both the environmental and social impacts of my actions.

I will strive within my home, community, and place of work or study to reduce Pacific Lutheran University's environmental impact.

I will do so through pledging myself to *at least* one action from each of the below sections.

(Check at least one from each category)

… reduce, reuse, and recycle the waste I create by:

- ☐ Reducing the amount of resources I purchase, consume, and discard.
- ☐ Using a reusable grocery bag when shopping.
- ☐ Using a reusable ceramic or plastic mug.
- ☐ Conserving paper.
- ☐ Editing on the screen and saving to disk rather than printing.
- ☐ Sending and storing electronically.
- ☐ Printing double sided.
- ☐ Designating a box for scrap paper that I can reuse.
- ☐ Reusing envelopes by placing a new label over the old address.
- ☐ Making a habit of recycling.
- ☐ Finding out what I can recycle at PLU.
- ☐ Closing the loop and purchasing recycled or reused products.
- ☐ Finding new uses for old things, like using a grocery bag as a trash bag.
- ☐ Keeping in mind the lifetime of a product, trying to reduce use of disposable items.
- ☐ Avoiding products with excessive packaging, and looking for packaging that is recyclable or reusable.

…conserving energy by:

- ☐ Not running the water while I brush my teeth or shave.
- ☐ Limiting my shower time, and using hot water sparingly.
- ☐ Doing only full loads of laundry and dishes.
- ☐ Using the self-foaming soap provided in all bathrooms on campus so I only need to turn the water on to rinse my hands off.
- ☐ Turning off unused or unneeded lights (especially when I leave a room).
- ☐ Using natural lighting whenever possible.
- ☐ Using compact fluorescent bulbs which conserve electricity and transmit less heat than incandescent bulbs.
- ☐ Avoiding decorative lighting.
- ☐ Minimizing my computer usage.
- ☐ Turning my computer off when it's not in use.
- ☐ Not using power strips to turn on all computers and peripherals.
- ☐ Minimizing use of screen savers and enabling power management features so my equipment will go into a low power or sleep mode when inactive.
- ☐ Turning off my monitor and speakers when not in use.
- ☐ Shutting down my computer every night which will not harm my computer or reduce its lifespan.
- ☐ Purchasing low wattage equipment certified by the Energy Star program.
- ☐ Turning off and unplugging all energy consuming equipment when not in use.
- ☐ Arranging my desk next to the window so I can study to natural light.
- ☐ Drying my clothes on a drying rack rather than in the dryer.
- ☐ Reducing use of heating and cooling devices.
- ☐ Dressing appropriately for the season.
- ☐ Keeping the thermostats at 68 degrees in the winter and 76 degrees for air-conditioned spaces in the summer.
- ☐ Keeping windows and doors in heated or air-conditioned areas closed
- ☐ Printing double sided.

…eat sustainably by:

- ☐ Eating locally; which saves transportation costs and helps the local economy.
- ☐ Taking only so much as I can eat at meals, and composting what I don't eat (using the composting bins provided in each residence hall).
- ☐ Eating lower on the food chain and avoiding meats.
- ☐ Avoiding disposable plates, cups, flatware, and trays.
- ☐ Avoiding take out food which is over packaged.
- ☐ Eating organic whenever possible.

…eat sustainably by:

- ☐ Eating locally; which saves transportation costs and helps the local economy.
- ☐ Taking only so much as I can eat at meals, and composting what I don't eat (using the composting bins provided in each residence hall).
- ☐ Eating lower on the food chain and avoiding meats.
- ☐ Avoiding disposable plates, cups, flatware, and trays.
- ☐ Avoiding take out food which is over packaged.
- ☐ Eating organic whenever possible.

…become an eco-friendly traveler by:

- ☐ Walking or riding my bike rather than driving, which will save on gas, reduce air pollution, reduce parking congestion, and be healthier for my body as well.
- ☐ Riding public transportation at least twice a week.
- ☐ Riding public transportation rather than driving my car.
- ☐ Driving efficiently (carpooling).
- ☐ Turning my car off rather than leaving it in idle.

…experience sustainability as a community by:

- ☐ Recruiting others to sign the pledge.
- ☐ Taking part in Outdoor Recreation trips around and off campus.
- ☐ Volunteering my time to help sustainability at PLU.

Thank you for making a commitment to sustainability for yourself, your community and for the earth. Please see the liveGREEN Guide for tips to aid you as you keep your pledge!

Pledge Now | Clear Pledge Form

Appendix H: The Sustainable RA Programming Guide

THE Sustainable RA

Every person is the right person to act. Every moment is the right moment to begin.
- Jonathan Schell, author, Fate of the Earth

What can I do as an RA?

- Model sustainable lifestyles for your residents.
- During Check In:
  - Point out the recycling rooms and emphasize the importance of recycling
  - Mention that we have reduced the number of trash cans in each room in an effort to reduce waste and promote the use of recycling and composting bins.
- Make RHA's Green Leaf Challenge a wing program, promote it at your first wing meeting
- Sign on to the liveGREEN pledge both as a student and a staff.
- Hang signs in bathrooms with the amount of water used per minute in the shower.
- Create a Sustainability themed bulletin board.
- Use the composting bin placed in your hall kitchen.

What can I do about WASTE?

- Reduce the amount of resources you purchase, consume, and discard.
- BYOM – Always use a reusable ceramic or plastic mug
- Conserve Paper
  - Edit on the screen and save to disk rather than printing
  - Send and store electronically
  - If you must print, print double sided
  - Designate a box for scrap paper that you can reuse
  - Reuse envelopes by placing a new label over the old address
  - For campus mail, use campus reusable envelops
  - If you need only a small section of an article, print just that section.
- Make a habit of recycling
  - Find out what you can recycle at: http://www.plu.edu/~fama/environmental-services/recycling.html
- Close the loop and purchase recycled or reused products
  - Look for recycled content in your school supplies to create a market for recycled material.
  - Purchase second-hand furniture and other supplies
- Find new uses for old things, like using a grocery bag as a trash bag.
- Keep in mind the lifetime of a product, try to reduce use of disposable items
- Avoid buying products with excessive packaging, and look for packaging that is recyclable or reusable.
- Don't litter… even better, pick up litter when you see it.

What can I do about WATER and ENERGY?

- Don't run the water while you brush your teeth or shave.
- Limit your shower time, and use hot water sparingly.
- Do only full loads of laundry.
- Use the self-foaming soap provided in all bathrooms on campus so you only need to turn the water on to rinse your hands off.
- Turn off unused or unneeded lights (especially when you leave a room)
- Use natural lighting whenever possible.
- Use compact fluorescent bulbs which conserve electricity and transmit less heat than incandescent bulbs
- Avoid decorative lighting
- Unless you are handicapped, do not use automatic handicap doors.
- Computer usage:
    - Turn your computer off when it's not in use
    - Don't use power strips to turn on all computers and peripherals
    - Minimize use of screen savers and enable power management features so your equipment will go into a low power or sleep mode when inactive.
    - Turn off your monitor and speakers when not in use.
    - Shut down your computer every night, this WILL NOT damage the computer or shorten its lifespan.
- Purchase low wattage equipment certified by the Energy Star program.
- Turn off and unplug all energy consuming equipment when not in use.
- Arrange your desk next to the window so you can study to natural light.
- Consider drying your cloths on a drying rack rather than in the dryer.
- Reduce use of heating and cooling devices:
    - Dress appropriately for the season
    - Keep the thermostats at 68% in the winter and 76% for air-conditioned spaces in the summer.
    - Keep windows and doors in heated or air-conditioned areas closed

What can I do about FOOD?

- The average American's food travels about 1200 miles from a farm to the consumer.
    - Eat locally; this saves transportation costs and helps the local economy.
- Forty-three thousand tons of food is thrown out in the US each day,
    - Take only so much as you can eat, and compost what you don't eat.
- Eat lower on the food chain, foods that are healthier for you tend to also be healthier for the planet.
- Avoid throwaway plates, cups, flatware, and trays.
- Avoid take out food which is over packaged.

What can I do about TRANSPORTATION?

- Americans make 123 million car trips each day that are short enough to be made on foot. DO NOT drive a car around campus.
- Walk or ride your bike rather than drive, this will save on gas, reduce air pollution, reduce parking congestion, and on top of all this it's good for your health.
- If your destination is too far to walk or bike, take public transportation.
    - Go to www.piercetransit.org to plan your trip.
- If you must drive, drive efficiently.
    - Carpool or drive a fuel efficient car.

Appendix I: Green Leaf Challenge

Green Leaf Challenge 2007

After taking your self-evaluation, target different activities that would go into each of these categories and write them down as you do them each week to keep track of your progress. Each activity focuses on a different area of sustainability and provides examples of how you could implement them.

If you need ideas for each box, visit the liveGREEN pledge at www.plu.edu/~sustain.

Activities	Week 1	Week 2	Week 3	Week 4	Week 5
Transportation Reduce use of your vehicle. Ex: Walk, ride your bike, take the bus					
Water Reduce your water use. Ex: Run water only when you're using it, take shorter showers, do only full loads of laundry.					
Electricity Conserve electricity. Ex: Turn off your computer each night, unplug unused appliances, and use natural lights when possible.					
Food Prioritize your sustainable eating habits: Eat local Eat organic Eat low processed Eat low packaged					
Waste Reduce, Reuse, Recycle, and Compost. Ex: Use the composting bin in your hall kitchen, recycle all recyclable materials, buy					

recycled content products or those with minimal or no packaging.					

Green Leaf 2007

Self-Assessment

Name: _____ Email: _____

Room Number: _____ Hall: _____

Transportation

Yes No I regularly chose to walk somewhere when I could drive.
Yes No I regularly ride public transportation.
Yes No I ride a bike more often than I drive a car.
Yes No The only trips I make by car are too far to walk or bike.
Yes No The only trips I make by car are too far to walk or bike and are also outside of the public transportation rout.
Yes No When I have to use a car I carpool.

Water

Yes No My average shower lasts less than 10 minutes.
Yes No My average shower lasts less than 5 minutes.
Yes No I don't shower every day.
Yes No I turn the water off while brushing my teeth.
Yes No I use the self lathering soap (found in every bathroom on campus) to wash my hands and only turn the water on to rinse it off.
Yes No When washing dishes, I am conscious of using only the water I have to.
Yes No I only do laundry when I have a full load.

Waste

Yes No I recycle everything that is recyclable.
Yes No I know what is recyclable at PLU.
Yes No I use my residence hall's composting bin for all biodegradable waste.
Yes No I purchase products with minimal packaging as to minimize my waste.
Yes No I make an effort to reuse products (examples: paper, cloths, furniture)
Yes No While purchasing, I try to buy products made from recycled paper.
Yes No I make a daily effort to reduce, reuse, and recycle.

Food

Yes No I am aware of what is in the food I eat, where it came from, and how far it traveled to get to my plate.
Yes No I make a conscious effort to buy locally grown or produced foods.
Yes No I shop at local farms or farmers markets.
Yes No I make a conscious effort to buy organically grown foods.
Yes No I tend to not buy highly processed or packaged foods.
Yes No I eat low on the food chain (little or no meats)

Energy

Yes No I turn off my computer every night.
Yes No I unplug things when I'm not using them so they don't waste power.
Yes No I don't blow-dry, curl, or straighten my hair every day.
Yes No When I purchase new appliances, I look for Energy Star ratings and enable their power setting.
Yes No I turn off power strips when I'm not using them.
Yes No I use the hall TV rather than having a TV of my own.
Yes No I use the hall refrigerator rather than having one of my own.
Yes No I don't leave appliances on while I'm not using or watching them.

Overall

Yes No I make a conscious effort every day to live sustainably.
Yes No I think that I can do more in this area.
Yes No I want to live a more sustainable lifestyle.

Under each question:
[ ] This is an area where I am ready to be better informed.

[ ] I am ready to take action to begin to change my habits in this area.

Appendix J: Residential Life Lifestyle Project

Residential Life Lifestyle Project

(Modified from Kirk and Thomas, 2003 and McKenny and Whitman, 2007)

Purpose:

This project is a challenge to make temporary changes to your lifestyle that will be beneficial to the environment, would be realistic to make, and might even improve the quality of your life.

Our version of the project borrows heavily, with a few modifications, from a project developed at Skidmore College as well as PLU's course Conservation of Natural Resources:

http://www.skidmore.edu/~jthomas/lifestyleproject/ (link provided on Sakai)

Kirk, Karin B., and John J. Thomas, 2003. The Lifestyle Project. *Journal of Geoscience Education*, v. 51, n. 5, p. 496-499.

The project has three parts:

A brief description of each section is given here, with the timeline for each part. More detailed descriptions are given on the following pages.

Baseline Data Collection and Analysis

There are two parts to the Baseline Data Collection. You will do the first part on your own as you collect data about ALL CATEGORIES of your activities for a 24-hour period (see separate handout) on August 21st. After completing the baseline 24-hours, you will complete the data analysis, and decide whether the information you have collected accurately reflects your personal views on sustainability.

Changing your lifestyle and journaling

The description of the specifics of the project, the rules and the categories that you will be addressing are on the following pages. Pay close attention to the details that are given. You will have four target days to begin altering your lifestyle:

August 22nd

August 26th

August 28th

August 29th

Group Lifestyle Reflection

During In Hall time after each target day, you will critically reflect on your experience within each target area.

The Rules:

1. The idea of this project is to make changes in your lifestyle that will have a beneficial effect on the environment. The changes aren't difficult, but they are significant. Mostly they will require planning and thinking about your actions.

2. Within the blank pages attached, you will keep a journal with entries for each day that you complete your project requirements. You will use your journal in group reflections about your experiences, decisions you had to make, and their impact on your life (for better, for worse and just different).

3. The Lifestyle Project involves making changes to your personal lifestyle. If you feel that these changes might negatively affect your health, happiness, and well being in any way, or if they conflict with your religious or philosophical beliefs, then you may choose another category.

Choose **two** of the three category choices below. Don't pick something that you already normally do, as the idea of this project is to make changes.

The Categories:

1. GARBAGE - Spend each project day producing no waste at all. You will have two waste-free days the first week, then three days the second week. The idea of reducing your input to landfills follows a certain hierarchy. The best thing is to reduce the amount of garbage you make by simply using less, buying less, and wasting less. The second option is to reuse whatever you can to avoid buying new things that will eventually end up as garbage. Recycling is the last option, to be used only when the first two options fail. So on your waste-free days you must live by these rules, and not contribute anything to the landfill on those days. Even though some types of plastics are recyclable, if you aren't able to recycle a particular type of plastic, it counts as garbage. Make sure you write on both sides of the paper, make copies only when necessary, and use the backs of old paper instead of using a fresh sheet. It is considered cheating to just hang on to something until you're given waste-free days pass, and then throw it out. Toilet paper does not count as garbage; it goes to the wastewater treatment plant, not the landfill. Other personal hygienic products, such as q-tips, are not counted as trash. Cigarette butts are exempt from this category as well, because quitting smoking is beyond the scope of this project. However, all butts must be put in the garbage can, not on the ground or out your car window.

2. ELECTRICITY AND WATER - Trim the fat off your excess energy consumption by reducing your water and electricity needs by at least 50%. To do this, you can do the following things: turn the lights off when you're not around; turn on only one light instead of two; study next to a window; leave the TV and the stereo off; cook meals that don't require lots of burners at once or long cooking times; use the microwave instead of the stove or oven; take a shower at half the usual duration; turn the water down in the shower so it's not full blast; take a cooler shower; don't leave the water running while washing, shaving, brushing your teeth, or washing dishes; skip the blow dryer and electric razor; don't use any unnecessary appliances; run the washing machine and dishwasher only when totally full; and hang laundry to dry instead of using the dryer. If you do all of these things it is possible to cut your consumption by 50% or more. The first week, you'll do this on two days, the second week you will do this on three days.

3. EAT EFFICIENTLY - The production of meat requires a large amount of water and energy, and also produces considerable waste. Approximately ninety percent of the grain grown in the US is fed to livestock. If you ate the grain crop directly, instead of the livestock, you would be using resources more efficiently. For example, 16 pounds of grain fed to beef cattle produces only one pound of edible meat (Cunningham and Saigo, 1999). The majority of the calorie content is used up by the animal for metabolism. This means that you ingest only about 6% of the original calories produced by the grain crop. Milk and milk products are less of an issue. One cow produces about 18,500 pounds of milk in a year and produces between 8 – 30 pounds of milk for each pound of feed (http://www.usda.gov/nass/aggraphs/milk1.htm). Another way of looking at this is by the amount of water required to produce different foods. For example, it takes 160 gallons of water to produce a loaf of bread, but it takes 2,500 gallons of water to produce one pound of beef (Cunningham and Saigo, 1999). By reducing the amount of meat that we eat, we can have a smaller environmental impact. Also consider packaging and processing of your food. Packaging uses energy and resources and creates waste, so buy products in bulk rather than individually packaged. Highly processed foods are made using water and energy.

Because you will be purchasing food as a staff, this category must be organized and clearly thought through. For your first week, spend two days feasting on healthy and delicious fruits, vegetables, nuts, and grains; just cut out the meat and cut back on processed and packaged foods on these days. During the second week, focus on three vegetarian/low processing/low packaging days. You should also be very vigilant about not wasting food during the project. Think of all the resources that go into the production of the food that are wasted if food is thrown out.

Note: If you eat a balanced diet otherwise, you don't need to worry about getting enough protein without meat. An average adult needs about 40 grams of protein per day (Cunningham and Saigo, 1999). Vegetarian sources of protein include whole grain bread (4 g per slice), beans (7 g per serving), pasta (7 g per serving), peanut butter (7 g per serving) and yogurt (11 g per cup). In any case, you should consult a physician or nutritionist before making changes to your diet or if you have any questions about your ability to complete this aspect of the project.

Cunningham, W.P., and Saigo, B.W., 1999, *Environmental science: a global concern*: New York, McGraw-Hill, 650 p

Part II. The Lifestyle Project Journal

Keep a journal of your activities in the project with one entry for each day of participation. Journal entries include exactly what you did to meet the requirements of the project, such as the length of your showers, your energy usage and your diet. Also describe how the lifestyle changes affected you. For each day of the project, experiences, struggles, and tips will be shared during in hall time with your staff.

Part III. Lifestyle Reflection Sessions
Use your journal and experiences during project to discuss and reflect upon changes to your lifestyle that are more likely to conserve resources:

Target Day 1:

- What did you learn about your habits during the baseline data collection and do they reflect your environmental values?
- What process did you go through to decide which lifestyle changes you would focus on?
- How easy was it to remember OR forget to change your habits?
- How can we as a staff support each other in this project?
- Any suggestions or questions to share?

Target Day 2:

- What habits have been easier/harder to alter than you would have originally imagined?
- Are there any difficulties that prevent you from meeting the project goals? And how can we, as a staff, support each other in moving past those difficulties?
- Describe some experiences you've had today that tied you into bigger questions or issues.
- Are there any insights or questions that you can share?
- As you prepare for Target day 3, are there any specific areas of the project that you can focus in on to make it more manageable?

Target Day 3:

- What was the most motivating, surprising, or insightful part of this target day?
- Is the PLU or local community supportive? If you asked people (at the UC or in a restaurant, for example) to do something differently to help you meet your goals, were they willing (even if they were surprised)?
- Tips? Questions?

Target Day 4:

- What were the easiest lifestyle changes to incorporate?
- What role did people in your life play in helping you or hindering you from meeting the project goals?
- Were there any negotiations with friends or staff, did the people close to you join in willingly, remind you of your goals, or try to keep you from meeting your goals (staff/friends)?
- And last, what societal barriers and support systems did you encounter during this project? Advertising for example, tries to convince us that we need more products so that we can be worthwhile and fulfilled people (whether it is a faster car, a 'better' beer, or whiter teeth). Because it is easy in our current societal and cultural setting to be heavily influenced to consume, be very clear about how family and friends, the community, and society influence your decisions while retaining the final responsibility for your choices.
- Describe one lifestyle change that you will commit to in the future.
- How can you use this shared experience to support efforts on your staff to continue living more sustainably?
- How can you use this experience to promote and support sustainability on your wing and in the PLU community?

Appendix K: Residential Life Sharing Your Home 2007-2008

P13 Excerpt

Sustainability Efforts:

We work towards sustainability by:

- Turning off unneeded lights (especially when we leave a room).
- Recycling all recyclable materials (a list can be found at http://www.plu.edu/~fama/environmental-services/recycling.html)
- Keeping windows closed when room is heated.
- Keeping thermostat (when provided) at 68 degrees in the winter and 76 degrees in the summer.