Institutional Footprint Project

Coastal Resources Learning Center

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**Executive Summary**

The Institutional Footprint Project is meant to serve as a starting point to more formally pursue sustainability at Grays Harbor College by informing and educating the college and community of where GHC is currently at and a vision for the future. Please use this report to muster momentum, recognize and celebrate what has been done and move forward to higher levels of sustainability.

The Institutional Footprint Project consists of an explanation of sustainability and its benefits, research into the sustainability formats of other institutions of higher learning, information on previous and on-going sustainability efforts at GHC, and various approaches to brainstorming about innovative recommendations for future strategies, planning and implementation that coincide with the unique circumstances of the college during a time of economic woe.

Based on the notion of sustainable development, sustainability is about meeting the needs of the present without compromising the ability of future generations to meet their own needs. The three E’s of sustainability: economy, ecology, and equity remind us that holistic approaches to sustainability consider social justice, environmental welfare, and economic security.

As sustainability gains momentum worldwide, so do efforts to research and develop resources on sustainability at institutions of higher education. This report outlines initial research on campus sustainability efforts and frameworks such as the Association for Advancement of Sustainability in Higher Education’s (AASHE) Sustainability Tracking, Assessment & Rating System (STARS), the American College and University President’s Climate Commitment, the Los Angeles Community College District’s Move toward Smart and Sustainable Campuses, successful campus sustainability programs, and obstacles and challenges colleges and universities face in moving toward sustainability.

This report compiles the range of sustainability efforts GHC has taken into one document with intent to distribute and inform the college and community of the strong foundation already in place. With participation of the administration, campus operations, academic departments, faculty, campus programs, clubs, staff, and students, previous and ongoing sustainability efforts described include:

- Sustainability and Related Committees
- Waste Reduction and Recycling
- Transportation
- Koi Aquaculture & Renewable Power (KARP) Project
- Sustainability in Architectural Planning, Construction, and Demolition
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- Grounds and Maintenance
- Custodial Department
- GHC Natural Resource Program
- Model Watershed Project
- Coastal Resources Learning Center Outreach and Education

Given the growing sustainable movement and urgency of solutions, this foundation lays the groundwork for GHC to formalize its commitment to sustainability by creating a system to maintain, build, promote and share these efforts with the college and larger community. This report provides ideas, discussion, and recommendations for future strategies, planning and implementation, which include:

- Conduct additional research on campus sustainability assessment frameworks in order to carefully consider what will work best for GHC and its objectives, goals and targets regarding sustainability.

- Establish a campus-wide comprehensive sustainability management system that is advised and/or directed by a committee with representatives from every department on campus. This would involve formalization of the roles and responsibilities of the committee by creating a mission statement, goals and procedures. Responsibilities of the committee should include prioritization and strategic planning, coordination of planning initiatives, projects, networking; monitoring of the program’s progress in achieving its goals; and delegation of responsibilities.

- Encourage accountability by delegating responsibility for reporting to individual departments, while also increasing transparency in energy costs. Facilitating a friendly competition between departments or buildings would also encourage accountability and energy-saving strategies.

- Create a college culture of sustainability through educating and informing staff and faculty of sustainability concepts and practices and encouraging faculty to promote them in their classes.

- Develop an experiential, applied educational model that catalyzes creative learning and involvement with the community by developing a robust service-learning program that instructs faculty in service-learning methodologies, builds community partnerships, and engages students in meaningful hands-on learning.

- Prepare well-informed, environmentally conscious citizens for success through an environmental curriculum requirement.

- Increase visibility of GHC’s sustainability efforts by building an online presence demonstrating GHC’s commitment and action to sustainability through reporting on
individual departments’ efforts, facilitating information-sharing and communication, and providing resources.

- Build on existing Earth Day activities to create a vibrant annual sustainability campaign that celebrates that year’s progress, promotes sustainable practices, and involves the college and community in planning for the following year.

Given the current economic situation and budget restrictions, innovative approaches to implement these recommendations include:

- Drawing on committee and volunteer support,
- Distributing and delegating responsibility to individual departments,
- Developing innovative service-learning programs and/or work-study positions that utilize and engage students, while also providing valuable experience and skills.
- Seeking additional funding and assistance through organizations supporting sustainable initiatives and service-oriented learning methodologies.
Introduction

The Grays Harbor College (GHC) Institutional Footprint Project is part of a campus-wide effort to increase knowledge of, implement, and promote more sustainable practices throughout the campus and broader community. Under the direction of college president Ed Brewster and the Executive Team, sustainability is a theme of increasing importance for GHC. Eventually, GHC would like to reduce the college’s ecological footprint to a position of “carbon neutrality.”

The Institutional Footprint Project consists of a sustainability audit, research into the sustainability formats of other institutions of higher learning, campus sustainability conversations during the Sustainability Committee meetings, an Institutional Footprint Project report (which is this document), presentation of the report to the Exempt Team of Grays Harbor College and eventually to the larger Grays Harbor College Community including the Board of Trustees and recommendations for future strategies, planning and implementation. It is the intention of the Coastal Resources Learning Center to construct and implement several phases of the Institutional Footprint Project, of which this is the first.

With leadership from the administration, many efforts have already been taken to integrate sustainability into campus operations. The fall kick-off days' theme for the last two years has been “Building a Sustainable Grays Harbor College.” Brainstorming sessions focused on different aspects of sustainability have been incorporated into strategic direction and planning. A sustainability committee has also been established to oversee sustainability efforts on campus.

In order to assess the current standing of sustainability planning and efforts at the college and identify areas for reducing costs, the college’s Coastal Resource Learning Center (CRLC) of the GHC Natural Resources Program was tasked with performing a sustainability audit for the college. It is prudent to critically assess where the college stands in regard to sustainability and efficient use of resources including energy, water, transportation. Met with challenging economic times where budgets are under pressure and carefully scrutinized, moving towards sustainability can aid in identification of cost reduction strategies. This report is the outcome of that effort and we anticipate the recommendations included in this report will be met with enthusiasm and incorporated into strategic planning.
Role of the Coastal Resources Learning Center

The Coastal Resource Learning Center (CRLC) aims to promote and enhance overall campus and community awareness, appreciation, and participation in natural resource stewardship and sustainability. By conducting the college’s first sustainability audit, the CRLC aims to achieve a complete, well-rounded assessment which the GHC administration can then use as a guide to make the campus more sustainable and promote eco-friendly practices to the staff, faculty, students and broader community.

Realizing the scope and potential of this project, the CRLC has decided to work on this project in Phases. Each year the CRLC staff will progressively assess and build on aspects of campus sustainability and outreach based on the previous year’s progress. During the first phase, objectives include:

A. Provide an understanding and shared definition of sustainability and identify a commitment by GHC to work towards that.
B. Review existing campus sustainability frameworks and sustainability efforts made by institutions of higher education.
C. Assess the sustainability efforts that are currently being implemented at GHC.
D. Provide a set of recommendations and ideas of how to further sustainability efforts GHC.

What is Sustainability and Why It is Important?

It is undeniable the world is facing unprecedented global challenges including the global energy and financial crisis, global warming and associated climate change, and widespread poverty with dramatic social and economic inequity. The world’s natural resources are being depleted at an unsustainable rate. Globally, nationally and locally, the economic recession has resulted in challenging times which are calling for innovative solutions. For sustainability to take hold, efforts need to range from the individual scale to the government, multinational institution, and international scale. It’s encouraging to see the wide range of efforts being adopted around the world. Grays Harbor College is now committed to taking initiative to evaluate, promote and implement sustainability efforts that will help preserve our precious natural world in Grays Harbor and beyond.

Understanding the concept of sustainability and its importance is an integral part of working towards and implementing more sustainable practices. Often misunderstood, sustainability is commonly viewed as a purely environmental concept. Today, sustainability is an all-encompassing concept with broader significance, requiring a holistic approach that
Institutional Footprint Project recognizes the interdependence of ecological, economic, and social spheres— the three pillars of sustainability.

Sustainability has roots in the notion of sustainable development. Formulated at the 1992 United Nations Conference for Environment and Development, sustainable development is defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs (STARS Guide to Pilot Phase One, 2008).

_Our Common Future: The Report of the World Commission on Environment and Development_, produced by the Bruntland Commission, writes, “our inability to promote common interest in sustainable development is often a product of the relative neglect of economic and social justice.” The report continues, “a world in which poverty and inequity are endemic will always be prone to ecological and other crises. Sustainable development requires meeting basic needs of all and extending to all the opportunity to satisfy their aspirations for a better life (STARS Guide to Pilot Phase One, 2008).”

While sustainable development is a tall order, it lays the groundwork to develop approaches to addressing the Three E’s of sustainability: economy, ecology, and equity. Thus, sustainability is concerned with connections between social justice, environmental welfare, and economic security. With such a broad meaning, sustainability is very complex and requires approaches which are almost boundless. Some common aspects of sustainability are categorized into groups such as:

- Waste reduction and recycling;
- Energy conservation and efficiency;
- Water conservation and wastewater management;
- Improved air quality and greenhouse gas reduction;
- Shift to energy efficient automobiles and increased public transportation;
- Green economic development and community teamwork;
- Land and wildlife conservation and restoration;
- Greening communities through gardens and use of native plants;
- Community building, involvement and activism.

Efforts toward sustainability range from individual to global in scale. Taking public transit, riding a bike to work, recycling, and composting are just a few examples of the efforts being made on an individual scale. Sustainable development and creation of “green” communities has become a major job creation and economic growth sector. Businesses refer to the triple bottom line: people, planet, and profits. Multinational organizations such as the United
Nations are bringing leaders from around the world in efforts to collectively address these global challenges. The next section will explain some different approaches to sustainability that colleges and universities in North America are taking to assess their institution, implement sustainability efforts and reduce the ecological footprint of their own campuses.

Now a common term, ecological footprint has become a buzzword that is largely used as an indicator of sustainability. It is used to explore the sustainability of individual lifestyles, goods and services, organizations, industry sectors, neighborhoods, cities, regions, and nations. The ecological footprint measures human demand on Earth’s ecosystems, comparing human demand with the earth’s ecological capacity to regenerate. The term is widely used but methods of measurement vary. It is essentially an accounting, measurement, and management tool that makes the reality of ecological limits central to decision making and can be used to educate people about carrying capacity and over-consumption. However, ecological footprint measurements are not complete sustainability measures ("Ecological Footprint"). Policy decisions regarding biodiversity, resource management, social well-being, and other sustainability dimensions require consideration of factors beyond the footprint.

Measuring the Institutional Footprint of an organization is a good starting point and large institutions can use it as a tool to:

- Measure overall demand on the biosphere
- Assess their sustainability performance
- Set realistic targets
- Monitor projects and programs
- Communicate successes
- Inform of ecological implications of the choices they make (Global Footprint Network).

Advantages of Sustainability on College Campuses

College and university leadership around the world have recognized the critical link between education and sustainability and realize the importance of conducting an assessment of sustainability, because we cannot change what we have not measured. Many question the value of using time and resources to initiate and advance sustainability efforts. It takes time and capital and can sometimes be expensive to begin implementing and monitoring sustainable practices. People point out costs including higher prices for some sustainable products and services, cost of disposal and recycling facilities, and loss of non-sustainable industries and jobs. Undoubtedly there are costs and benefits in applying sustainability measures. However, in the long run benefits greatly outweigh costs. The Sierra Club Sustainable Consumption Committee outlined benefits of conducting a sustainability audit. It is no surprise the benefits are broken into categories aligned with the three pillars of sustainability.
Environmental Benefits
- Improved environmental performance and responsibility
- Reduced greenhouse gas emissions and global climate change
- Improved air quality
- Reduced waste sent to landfill
- Reduced air and water pollution
- Reduced resource consumption

Social Benefits
- Improved employee health (physical and psychological)
- Improved personal responsibility and workplace health
- Expansion of sustainable practices to personal life
- Increased employee productivity and efficiency
- Improved indoor air quality

Economic Benefits
- Reduced water, energy, disposal and materials purchasing costs
- Possible grant funding for sustainability program
- Support local business through purchasing locally
- Support of sustainable businesses – renewable energy, organic agriculture, sustainable products
- Creation of sustainable research and new sustainable industries
- New employment opportunities (Institutional Sustainability Audit, 2005).

It is vital for existing and future generations to maintain and conserve what is left of our natural resources. Upon conducting an audit, campuses have a better understanding of where they stand and have a foundation upon which to build. Major objectives of this audit include: assessing where Grays Harbor College stands; providing a holistic picture of how far campus sustainability efforts can be taken; and providing realistic recommendations of how to implement sustainable practices to address social, economic, and environmental issues on the local scale at the college and in the community.

Sustainability Frameworks for Colleges and Universities

AASHE: The Association for the Advancement of Sustainability in Higher Education is at the forefront of promoting sustainability in all sectors of higher education. Founded in 2006, AASHE is an association of colleges and universities in the U.S. and Canada working to create a sustainable future. Defining sustainability in an inclusive way, encompassing human and ecological health, social justice, secure livelihoods, and a better world for all generations, AASHE’s mission is to promote sustainability in all sectors of higher education from
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governance and operations to curriculum and outreach—through education, communication, research and professional development (STARS Guide to Pilot Phase One, 2008).

In August of 2006, AASHE embarked on the process of convening all relevant stakeholders in a collaborative process of developing an all-encompassing assessment framework for rating all the sectors and functions of a campus. This effort was started in response to a call for a campus sustainability rating system from the Higher Education Association Sustainability Consortium (HEASC), AASHE developed and is refining versions of the Sustainability Tracking, Assessment & Rating System (STARS) framework under the direction of a Technical and Strategic Advisory Committee. To further improve STARS, AASHE has conducted a Pilot Project in two phases (STARS Guide to Pilot Phase One, 2008).

AASHE’s STARS for colleges and universities is a voluntary, self-reporting framework for gauging relative progress toward sustainability. It is designed to:

· Provide a guide for advancing sustainability in all sectors of higher education, from education and research to operations and administration.
· Enable meaningful comparisons over time and across institutions by establishing common standards of measurement for sustainability in higher education
· Create incentive for continual improvement toward sustainability
· Facilitate information sharing about higher education sustainable practices and performance
· Build a stronger, more diverse campus sustainability community to promote a comprehensive understanding of sustainability that includes social, economic, and environmental dimensions (STARS Guide to Pilot Phase One, 2008).

More than 90 colleges and universities are testing STARS during the pilot period. Over the course of 2008 they provided feedback to AASHE that will help inform future versions of STARS. The first pilot phase was launched in February 2008, with the second pilot phase released in September 2008, with plans to release STARS version 1.0 in 2009. It will be the first version to allow campuses to achieve a sustainability score. The STARS framework provides guidelines by which institutions may measure themselves and qualify for different levels of recognition of accomplishment. STARS is intended to encompass long-term sustainability goals for already high-achieving institutions as well as entry points for recognition of institutions that are taking first steps towards sustainability (STARS Guide to Pilot Phase One, 2008).
As intended, STARS is an all-encompassing and comprehensive rating system that offers credits arranged into three categories: 1) Education and Research, 2) Operations, 3) Administration and Finance. Within each category, there are a number of subcategories with several more criteria for which points are allotted. It is useful to outline the three categories and their subcategories in order to demonstrate the extent to which campuses are able to take their sustainability efforts (AASHE, 2008).

Section 1: Education and Research
- Co-curricular Education
- Curriculum
- Faculty and Staff Development and Training
- Research

Section 2: Operations
(recycling program required to qualify for assessment)
- Buildings
- Dining Services
- Energy and Climate
- Grounds
- Materials, Recycling and Waste Minimization
- Purchasing
- Transportation

Section 3: Administration and Finance:
- Investment
- Planning
- Sustainability Infrastructure
- Community Relations and Partnerships
- Diversity Access and Affordability
- Human Resources
- Trademark Licensing

This alone provides a picture of the breadth and depth of campus sectors and functions that are suitable for achieving progress towards sustainability and will be used in formulating sustainability ideas and recommendations for Grays Harbor College. The next section reviews another framework that college and university presidents are able to sign onto in order to help facilitate the planning process to go carbon neutral and to increase colleges’ accountability by requiring continued reporting. The section following that reviews a case study concerning a group of community colleges that are “going the extra mile” in implementing sustainable measures in their district.

American College and University Presidents Climate Commitment:

The American College & University Presidents Climate Commitment is a high-visibility effort to address global climate change by garnering institutional commitments to neutralize
greenhouse gas emissions, and to accelerate the research and educational efforts of higher education to equip society to re-stabilize the earth’s climate (American College & University President’s Climate Commitment Implementation Guide, 2007).

Building on the growing momentum for leadership and action on climate change, the Presidents Climate Commitment provides a framework and support for America’s colleges and universities to go climate neutral. The Commitment recognizes the unique responsibility that institutions of higher education have as role models for their communities and in training the people who will develop the social, economic and technological solutions to reverse the effects of global climate change. Presidents signing the Commitment are pledging to eliminate their campuses’ greenhouse gas emissions over time. This involves:

- Completing an emissions inventory
- Within two years, setting a target date and interim milestones for becoming climate neutral.
- Taking immediate steps to reduce greenhouse gas emissions by choosing from a list of short-term actions.
- Integrating sustainability into the curriculum and making it part of the educational experience.
- Making the action plan, inventory and progress reports publicly available.

The college and university presidents and chancellors who are joining and leading the Commitment believe that exerting leadership in addressing climate change will stabilize and reduce their long-term energy costs, attract excellent students and faculty, attract new sources of funding, and increase the support of alumni and local communities (American College & University President’s Climate Commitment Implementation Guide, 2007).

**LACCD: Los Angeles Community College District’s Move towards Smart and Sustainable Campuses**

Reviewing case studies often provides insight, ideas, and a vision of what could be. The article titled “Creating Agile, Sustainable and Smart Campuses” provides a concrete example of the extent to which college campuses are taking sustainability efforts. The case study summarizes the measures the Los Angeles Community College District (LACCD) has taken in their mission to achieve agile, sustainable, and smart campuses throughout their district and provides a sketch of the model (Clark, Eisenburg, & Nelson, 2007).

With tremendous public sector support in public policy, leadership and funding, the LACCD case may be an extreme example of a group of colleges going “green”, but it is important to realize this potential and recognize it as an example of, “how higher education can be a
model for social and environmental change by planning and implementing programs designed to begin to solve the problems of global warming and related challenges (p.2)."

“Sustainable and smart campuses include the facilities, land, and the infrastructure sectors that intersect within and to the college, such as energy, water, IT, waste, and environment, and must have public sector involvement and oversight to set goals, policies, programs and provide finance (p.5).” The model aims to go from a traditional power paradigm where energy is generated from a central grid or plant produced by fossil fuels and nuclear power that was then transmitted long distances to meet the demand of customers (p. 7) to an agile (p.8) sustainable paradigm that localizes power sources based on renewable energy, or combines traditional and renewable energy sources. As such, college campuses can serve as models for communities, towns, and cities (Clark, Eisenburg, & Nelson, 2007).

- Smart and sustainable campuses must have three components: Primarily, there is a need for a Master Strategic Plan for infrastructure that includes energy, transportation, water, waste and telecommunications along with the traditional dimensions of research, curricula, outreach and assessments.
- Secondly, issues pertaining to the citing of buildings and overall facility master planning which must be addressed from the perspective of “green”, energy efficient orientation and be designed for multiple-use by academic and local communities.
- Lastly, a sustainable smart campus is a vibrant, “experiential” applied educational model that should catalyze creative learning (p. 3).

In wake of the California energy crisis of 2000, the LACCD Board of trustees took initiative to ensure buildings would be environmentally sound and “climate neutral,” believing the colleges act as a symbol for the entire community of what education “does” instead of just teaches. Their subsequent efforts to define and implement policy triggered a series of actions and programs to promote and implement sustainability efforts in their district.

The LACCD combined construction, renovation, and restoration program became one of the largest sustainable building programs in the U.S., with over 500 projects including renovations, upgrades, modernizations, and at least 40 new “green” buildings. A “shared governance” program was established to include administrators, professional educators, students, and community members in the campus decision-making process. In 2005, the district initiated a system wide renewable energy central plant program and started the “Energy Independent and Carbon Neutral” program. Sustainability has also been infused into an integrated curriculum with courses covering sustainability ranging from business to accounting, engineering, and architecture (Clark, Eisenburg, & Nelson, 2007).

The concept of sustainable and smart agile college communities represents a new paradigm, and can be seen as a threat to the established, traditional approach to political governance and infrastructure operations in a society where nations, states, and cities have historically
tried to control and centralize power and authority. But LACCD has worked within that system by crossing many economic sectors and working with public policy makers. In this case, public policy has been significant for leadership, support and program funding. “Leaders of institutions need to understand the connection between their growth and development and their environment. Leaders of colleges and universities should be equipped to analyze how their actions/inactions (building designs/construction, expansion, maintenance, energy use, etc.) impact natural resources around them (p. 6).”

It is clear that Grays Harbor College’s leadership understands that connection and strives to make sustainability a priority in their strategic direction. The next section will review the sustainability efforts that have taken place at GHC.

**Previous and On-going Sustainability Efforts at GHC**

With sustainability becoming a theme and priority for GHC, many sustainability efforts have occurred over the last few years. Faculty preparation and back to school days have been centered on sustainability. Sustainability was the theme of the 2007 and 2008 fall kick-off days and brainstorming sessions were conducted on ideas across the spectrum of sustainability and then incorporated into strategic planning. The president and administration have made it a point to address and promote sustainability through this incorporation of sustainability into strategic planning, as well as directing, participating and/or supporting various sustainability efforts in diverse departments around campus. This section describes these efforts in more detail.

**Sustainability and Related Committees**

Initiated and supported by the administration, there is an active sustainability committee that oversees and works to implement sustainability efforts on a campus-wide basis. Several of the following initiatives and actions described in this section were started by and are now guided and supported by the sustainability committee.

Similar committees were created to look at more specific components of sustainability. A Campus Energy Savings committee was assembled to examine how to reduce energy consumption to help cut costs, while another committee was created to consider sustainability issues in planning and construction, as well as the tearing down of buildings. Additional details are provided later in this section.
Waste Reduction and Recycling

Under the direction of the sustainability committee, discussions on recycling and conservation were initiated. Beginning efforts focused on implementing a recycling program, promoting awareness and actions to reduce waste, and a shift to purchasing paper with recycled content.

As a start, Grays Harbor College implemented a single-cart recycling program to supplement its garbage services. Recycling bins were acquired and small recycle bins were placed in classrooms and all public areas while the 90–gallon blue bins were placed in areas on campus with heavier human traffic. Faculty, staff and students were encouraged to recycle all paper, cardboard, soda cans and bottles, etc. The sustainability committee chair worked with the custodial department to facilitate the proper disposal of recycled materials and with LeMay Enterprises (the local hauler) to possibly switch to smaller garbage containers and cut down on pick-ups during breaks.

The campus response to the single-cart recycling program has been positive, already resulting in a significantly lower amount of waste. Since the program has been on campus, approximately 30% of GHC’s waste is actually recycled. Continued efforts to smooth out the kinks of the campus recycling program and increase efficiency, participation, and awareness are taking place and will be discussed in the Recycling Survey Results Report.

Other initiatives related to waste reduction and recycling include educating folks about the need and availability of shredding and locating shredding bins in various areas, switching to the purchase of locally produced 100% recycled paper from Grays Harbor Paper, eliminating the use of Styrofoam products in foodservice, and making notepads from recycled paper. Maintenance and custodial staff also worked together on recycling light bulbs and fluorescent tubes. The college purchases fluorescent lighting tubes that are delivered in pre-paid boxes which are then used to collect and send back old tubes, ensuring that bulbs are never thrown away.

Energy

Grays Harbor College is also making concerted efforts to evaluate, address, and reduce their energy use. When prioritizing which sustainability issues to address first, the administration identified conservation and recycling as priorities. Energy conservation can reduce costs while also reducing the college’s institutional footprint, and impact on the environment.
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If we are to achieve conservation, it is useful to understand the concept by looking at definitions. More broadly speaking, Merriam-Webster Online Dictionary defines conservation as “1: a careful preservation and protection of something; especially: planned management of a natural resource to prevent exploitation, destruction, or neglect.” Wikipedia.com provides information on energy conservation more specifically.

“Energy conservation is the practice of decreasing the quantity of energy used. It may be achieved through efficient energy use, in which case energy use is decreased while achieving a similar outcome, or by reduced consumption of energy services. Energy conservation may result in increase of financial capital, environmental value, national security, personal security, and human comfort.

(Continued on page 20)

Recycling Survey Results Report

In a continuing effort towards waste reduction and overall cost savings, Grays Harbor College initiated a change from solely garbage services, to implementing a single-cart recycling program in addition. This change has been met, for the most part, with open arms and has already seen lower waste amounts as a result. Since the single-cart recycling program has been on campus around 30% of GHC’s waste is actually recycled.

Survey

A survey was presented to 124 faculty, staff, administrators and students aimed at determining the attitudes of GHC toward recycling and what improvements could be made to improve campus recycling. The survey results are being used to better understand what is being done correctly to encourage campus recycling as well as offer feedback about what improvements could be made.

- Of those surveyed, 94% already recycle what they can and gave many different reasons as to why they do. Some of the reasons given were; recycling is good for the environment, it is a sustainable practice, for the future of their children, to reduce landfill waste and save resources.
- When asked what the perceived reasons were for not recycling, survey takers tended to share the same rationale; apathy, laziness, and being uninformed.
- 76% of those surveyed considered themselves knowledgeable about what items can be recycled while the other 24% either had no idea or just weren’t sure.

The survey also presented those on campus with an opportunity to express how they believe GHC could improve its recycling program. Some of those asked believed that recycling was already simple on campus, while the majority suggested minor improvements to the current system. More bins and better signage were the most popular ideas along with better locations.

Answers included a three container system for glass, paper, and plastic and signs indicating what can be recycled. Based on these kinds of answers to this question, many people are still not clear on single-cart recycling and how it works.
- Furthermore only 33% of those surveyed believed that the current recycling bins are clearly labeled and easily identified.
When asked what percentage of material is currently recycled at GHC, survey results show when given the choice between 15%, 30%, 45%, and 60%, the majority surveyed chose 30%.

**Recommendations**

*Increase Awareness of Recycling and Waste Reduction*

Awareness of recycling and what all can be recycled would be a good first step to improving the current system. While most know what can be recycled there should be a campus wide understanding from top to bottom.

- Faculty should be encouraging their students to use classroom recycling bins and emphasizing the importance of recycling habits. Something as simple as a reminder on the board to recycle has a huge effect and raises the potential for recycling elsewhere.
- Staff should do their best to practice responsible resource use when in the copy room or printing emails. The amount of paper that could be saved by simply printing double-sided and limiting what is actually printed would be a huge reduction in waste as well as costs.

*Relocate for Maximum Visibility and Provide Better Signage*

One issue that was noted on the survey is the perceived scarcity of recycling bins in addition to the abundance of garbage cans. While there may be a decent amount of recycling bins on campus, their locations determine their actual worth. By not having bins conveniently available people are more likely to just throw their trash away. Placing bins in heavily used areas, like the HUB, gyms, and classrooms encourages use as well as making their presence widely felt.

Along with better locations, there needs to be better signage. Currently county provided signs are in use. These signs show everything that can be recycled in a single-cart bin. While these signs are informative, they are not meeting the needs of GHC. Many survey takers noted that having simple, easily read signs would improve recycling dramatically. This could be as basic as a sign with large letters reading “Recycle” or a step further with listing the basic items found on campus to be recycled, i.e. “Cans, Bottles, Paper.”

**Conclusion**

GHC has made significant progress when it comes to waste reduction. While there are specific improvements that need to be made to the recycling program at GHC, they are minimal and easily implemented. If awareness were raised campus wide, GHC could see an immediate reduction in the amount of waste generated with a concomitant reduction in waste disposal costs. Simply implementing a recycling program was a step in the right direction, now GHC needs to make small changes to “fine-tune” the program. Based on the results of this survey, there is now a clear understanding of what needs be accomplished to strengthen GHC’s recycling program in the future.
Individuals and organizations that are direct consumers of energy may want to conserve energy in order to reduce energy costs and promote economic security. “Industrial and commercial users may want to increase efficiency and thus maximize profit.”

Both of these definitions illustrate important concepts in conservation. Generally, conservation is aimed at preserving and protecting natural resources. More specifically, energy conservation is environmentally, financially, and socially valuable. Another important concept within the second definition is that energy conservation can be achieved through efficient energy use or reduced consumption. GHC is working on strategies to achieve both efficient energy use and reduced consumption.

Once conservation was identified as a priority, a Campus Energy Savings Committee was quickly formed to discuss and develop strategies, implementation and reporting in response to energy saving mandates. GHC is facing dramatic (estimated at 10-15%) target reductions to the State General Fund which includes savings in: gas/energy, out-of-state travel, personal service contracts, equipment purchases and hiring. Additionally, Governor Gregoire has requested a 5% reduction in gasoline consumption over last year’s figures.

During the initial meeting, the Energy Savings Performance Contracting (ESPC), a partnership between the College, the ESCO (Energy Service Company), and the GA Energy Team, proposed a method to deliver building energy upgrade projects by using utility savings to pay for all project costs. The ESCO guarantees both maximum project cost and projected energy savings. GA engineers provide long term monitoring of project savings. Typical energy upgrade projects may include: interior/exterior lighting, HVAC modification, building/irrigation water conservation, energy management control systems and retro-commissioning (making sure existing systems are working as they should.)

There was clear consensus from the committee that the GHC administration should be informed and encouraged to participate. If pursued, the college selects one of GA’s pre-qualified ESCO’s to complete an energy audit of the entire campus. The ESCO designs, installs, commissions, and finances the projects selected by the College. Financing can include capital funds, utility incentives, and low interest State Treasurer loans.

Grays Harbor public utilities district (PUD) Senior Key Account Representative Kevin Howerton is also working with the College to work towards campus energy conservation. The PUD has been actively involved in conservation efforts for many years and may offer incentive dollars for upgrade projects. With intent to produce a Continuous Energy Improvement Plan, Howerton is collecting data on all campus buildings in order to benchmark the GHC campus. The concept is to look at individual buildings, their square footage, and their overall energy consumption. Once completed, these benchmarks will be used to compare to national and state averages to see where the college sits in regards to
energy consumption. This will also enable GHC to compare rates of energy consumption in
different buildings in order to plan and prioritize energy conservation strategies.

A challenge that Howerton has encountered in his benchmarking process relates to the
variation between mass-metered buildings as opposed to buildings with individual electric
meters. During construction of some campus buildings
several were put on a primary loop mass meter.
Currently only the Bishop Center, the Auto/Welding,
Aquaculture, and Diesel Technology buildings are on
separate meters. Logistically this makes it more difficult
to determine the energy usage of each building and will
also likely result in challenges to managing and
monitoring in the future. Although more difficult,
individual building monitoring is taking place in order to
produce the benchmarks. In addition, Cascade Natural
Gas is under new ownership and has stepped up
efforts to promote energy conservation, also offering
incentive dollars that the college may be able to take
advantage of in the future.

The College is also working with CED (Consolidated Electrical Distributors), a company in
Aberdeen, WA to assess lighting and provide ideas and quotes for retrofitting lights for
covered walkways and bus stops, parking/security lighting, lighting in the Hub, and
gymnasium. By retrofitting these lights, the college would increase energy efficiency thereby
decreasing energy costs.

Several materials that provide useful information and strategies for energy conservation
were also identified. The Office of the Governor provided a list of common sense energy
usage and consumption tips entitled *Energy Savings Measures*. The General Administration
also provided *Conservation ideas for Building Occupants and Operators* that lists ideas to
conserve building energy for both occupants and operators. These materials are being used
for ideas of how to increase energy conservation at GHC.

GHC is also home to several energy generation “demonstration” projects. There is a
Sunseeker photovoltaic panel on the south side of the 300 building. This solar panel is the
largest capacity panel on the Harbor. The Wind Turbine on the east side of the 1900
building has serious propeller attachment problems. Repair options were investigated but
have to be postponed due to recent budget reductions. Efforts at producing Hydropower
from Lake Swano and Alder Creek have been considered but were hampered by regulatory
road blocks. These demonstration projects are great educational tools that can continue to
be used to educate students about alternative energy production.
Transportation

Several initiatives to address transportation have taken place on campus regarding student, faculty, and college-sponsored transportation, with an aim to reduce reliance on personal transportation, utilize alternate forms of transportation, collaborate ridership on work-related travel, and fuel consumption reduction.

By providing all students a free bus pass, which is funded through their student fees, GHC actively encourages use of public transport. On a social equality level, this also allows those who do not have access to personal transportation to get to and from campus. Several efforts to provide faculty bus passes have been discussed, but have encountered logistical barriers.

Biking to campus has been encouraged and promoted through advertising on campus-boards. Sustainability committee discussions have led to the creation of several secure locations on campus for bike-riders to lock up their bike and gear. Discussions of how to increase biking as a transportation method are also occurring.

A committee was also organized to look at possible fuel saving strategies for the college. Even though the committee’s task was to address the ways the college could reduce the amount of fuel used, many of these apply to everyone’s daily driving. The full list of those strategies is provided in Appendix B. The committee also looked into the possibility of purchasing and/or leasing a hybrid vehicle from the state motor pool. However, due to budget reductions this recommendation has been put on hold.

Koi Aquaculture & Renewable Power (KARP)

Several energy generation “demonstration” projects are results of the once active and long-running Grays Harbor College’s KARP Project (Koi Aquaculture & Renewable Power). The KARP Project was started as a student-led inquiry in the Advanced Aquaculture class during the 2000 academic year. From there, the project received funding from the local public utility district, energy companies, and the Washington State Higher Education Coordinating Board (HCEB). The HECB grant transformed the student project into a service-learning “business,” with a defined organizational structure, project goals, timelines, and limited budget. The Karp Project aimed to develop and apply state-of-the-art technologies to meaningfully advance
learning, awareness, service, aquaculture, and energy use that are well aligned to lifestyles compatible with our earth’s capacity to sustain us, and to do this with a sense of urgency.

The KARP Project supplemented the existing learning environment already established with the Model Watershed Project and salmon hatchery through proposing an Aquaculture Facility and Renewable Power Demonstration Site. Plans included the addition of a new greenhouse/hatchery to the existing salmon hatchery facility for breeding koi and the addition of solar, wind, and micro-hydro power sources to highlight renewable power opportunities, and provide valuable research results for future ventures locally and beyond.

Met with restrictive regulations and changes in staff and leadership, project activity declined and faded in later years. However, many of the project objectives were met and as a result, GHC is home to several energy generation “demonstration” projects. As mentioned previously, there is a “sun seeker” photovoltaic panel on the south side of the 300 building; which is currently the largest capacity panel on the Harbor, at about 1KW. There is a wind turbine on the east of the 1900 building that is not currently in operation due to propeller attachment problems.

*Sustainability in Architectural Planning, Construction, and Demolition.*

Grays Harbor College is now incorporating sustainability into Architectural Planning, Construction, and Demolition. The main campus consists of 15 buildings with a total of 275,842 square feet. In addition, the College owns three off-campus facilities and rents a variety of other instructional spaces throughout its service district. Forty-five percent of the campus was built in 1958 by the Aberdeen School District with bonds paid by the citizens in the district. Forty-four percent of the campus was built between 1964 and 1972 with a mixture of school district bonds and state funds, and the remainder of the campus was constructed in the 1980’s with a mixture of private and state funds. The 2000 building and Auto Mechanics building were completed in 2007. Many of these buildings remain functioning long past their expected lifespan because College staff takes great pride in their cleaning and maintenance efforts.

The first campus Facilities Master Plan at Grays Harbor College was developed in December of 2001 and updated in December of 2003. Concluding in December of 2005, a thorough planning effort was undertaken, producing an exciting departure from previous plans. The 2005 Facilities Master Plan, and 2007 update, enhances the natural setting and recent, major campus improvements by creating a new axis for building orientation and placement of commons spaces. The Facilities Master Plan continues to identify late 50’s and mid 60’s buildings for replacement.
The Facilities Master Plan identifies a 10-year plan to replace those buildings not cost effective to renovate. Buildings that are structurally sound but need major updates to HVAC, electrical and data systems and redesign of program space are slated for renovation. The primary challenge for Grays Harbor College is to keep the existing facilities functioning until replacement buildings can be constructed and major renovations can be completed. Moving to a more formal, comprehensive preventative maintenance system has been a critical part of long-term facilities planning efforts.

The 2005 Facility Condition Survey identifies two replacement priorities – 900 Building (Child Care) and 300 Building (Life Sciences). Matching funds for replacement of the Child Care facility were granted in the 2007-09 biennium and the College is pursuing donations for their local match. Construction of the Child Care facility should be completed in 2009. Design funds for the Science/Math/Art (SMArt) Building are requested for the 2009-11 biennium. Pre-design funds for the Student Services and Instructional Building are also requested for the 2009-11 biennium.

In carrying out these plans to construct new buildings, GHC is aiming to achieve high LEED standards. The Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ encourages and accelerates global adoption of sustainable green building and development practices through the creation and implementation of universally understood and accepted tools and performance criteria. Established by the US Green Building Council, it is one of the most effective and well known frameworks for implementing green buildings on college campuses.

The certification process can be used for new structures or existing buildings. The certification process for existing buildings provides a list of projects and standards. The LEED Project Checklist is composed of prerequisites and creditable items in the major categories of building cite:

- water efficiency,
- energy and atmosphere,
- materials and resources,
- indoor environmental quality,
- innovation in operation, upgrades, and maintenance.

This structured approach can help to integrate the efforts of the four aspects of the campus community (administration, academic, research, and local community) toward a common goal. It can help form the basis of planning and organizing efforts to accomplish a sustainable campus.
Grays Harbor is heading in the direction of becoming a sustainable campus, partially by planning and constructing new buildings to meet these LEED standards. The new Child Care building is set to certify at the LEED Gold Standard level. Just a few of the green features that the new Child Care building are credited with are natural ventilation, utilization of regional materials, and a built-in recycling area. The 700 Building will also be undergoing renovations that will enhance its efficiency and staff well-being. To replace the 300 Building (Life Sciences), the college has completed the pre-design for the SMArt (Science, Math, and Art building). These plans include many green features and will likely achieve a LEED Silver or Gold certification.

Demolition

Grays Harbor College is also encouraging sustainable practices in the demolition of buildings. When demolishing the 600 building, GHC encouraged the contractor to recycle as much as possible. The contractor agreed and piles of debris were sorted according to material type, providing visual evidence that they were doing their part to recycle and salvage as much debris as possible. At that point, the college had no interest in the glu-lam beams that the contractor had saved for salvage. However, when designing the Child Care building, GHC asked the architects if the glu-lam beams could be used, while also informing them of surplus tongue and groove wood decking that was used in the construction of the underside of the rooftop outside the 2000 building. The architects were able to incorporate both into plans for the Child Care building. The glu-lam beams were bought back from the demolition contractor for $150 each. To buy these beams new would have cost $15,000 each. The beams were taken to the Grays Harbor Historical Seaport Authority and cut to dimensions required for the project and will be stored there until construction on the Child Care building begins. Reusing materials from the 600 building not only saved the college a significant amount of money, but also decreased the demand for raw natural resources.
Grounds and Maintenance

The grounds and maintenance crew has made and continues to make significant contributions to sustainability efforts at GHC. With responsibility for maintenance of grounds at the main campus of GHC and all satellite campuses, many efforts are centered on sustainable concepts and aimed at reducing costs. Various efforts include composting, recycling woody debris, utilizing native species, water conservation, and reducing costs through reuse of materials.

Located on lower campus by the parking lot and baseball field, maintenance utilizes cold compost, estimating that about 40% of yard waste is composted. A large proportion of grass clippings and leaves are scattered around and/or used in the flowerbeds as a fill, where some also undergoes the process of decomposition. Whenever possible, clippings on satellite campuses are brought back to GHC to be added to the compost pile. Knowledge of beneficial properties of certain materials is also utilized to reduce costs, enhance growth environments and reduce waste. For example, oak leaves are used on flowerbeds because they are beneficial to those beds.

When possible, dead branches and limbs are composted as well. In some cases, like the severe storms where there were hundreds of downed trees, debris was stacked and unusable wood was taken to Grays Harbor Paper. (There have also been instances when GHC hired a tree service and encouraged them to save the tree chips to use for beds, instead of having to buy new wood.)

Discussions about food composting have taken place. However currently, there is not a way to compost food waste without a hot compost operation, which is relatively labor intensive. Labor demands on grounds and maintenance staff are already at peak levels. A hot compost system requires more attention, as it needs to be turned and watered regularly. It would also require a somewhat closed location to ensure rodents or pests wouldn’t tamper with the rotting foods. Currently, there is not adequate space adjacent to the cafeteria for a hot compost facility in which smells and pests could be managed.

Where possible, GHC uses native plants for landscaping to reduce maintenance needs. Photo by Ralph Hogaboom.
Native plants are utilized whenever possible because the success rate is much higher and general maintenance is reduced. Much of the shrubbery and evergreen trees surrounding campus are native plants, with the current percentage of native plants estimated at 40%. Maintenance is currently trying to increase the percentage of native plants in order to help save labor.

Regarding water use, there is an irrigation system that is primarily used in summer months that is often hooked up to clean windows or other outside surfaces simultaneously, saving water resources. Watering during the heat of summer is done between 4-6 am, when timing maximizes the benefit of the water being used. In attempt to reduce costs with the knowledge that some cities offer irrigation water credits, maintenance investigated the possibility and found that Aberdeen does not offer such credits.

Grounds staff also trying to be involved in the architectural planning process for new buildings and landscaping. Architects seldom consider grounds and maintenance, often resulting in landscaping that is labor intensive.

_Custodial Department_

The custodial staff at GHC is also making efforts to go green by adopting eco-friendly cleaning products and reducing the use of chemicals wherever possible. When first adopted, there was frustration that green cleaning products did not work as efficiently as other harsher cleaning products. More recently, green cleaning products have improved and the custodial staff did a trial comparing new green cleaning products and the traditional cleaning products. They found the new green line to be suitable for their needs. The custodial staff is now working to phase out traditional cleaning products and phase in a new line of green cleaning products with the Triple S Navigation Dilution Control System that utilizes EarthCare cleaning products.

The EarthCare Seal on Triple S products indicates that the product meets the standard from recognized organizations such as Green Seal, US Green Building Council (USGBC) and Environmental Protection Agency (EPA). Green Seal certified products meet environmental standards for industrial and institutional cleaners based on reduced human and aquatic toxicity. These products also comply with the USGBC LEED-EB Rating System and have been formulated in partnership with the EPA Design for the Environment Formulator Initiative.
GHC Natural Resource Program

Inherently directed by sustainable concepts aiming at managing our earth’s finite natural resources for our own use and the use of future generations, GHC’s natural resources program prepares graduates for a host of jobs in the environmental sciences. Watershed analysis, monitoring, and restoration are “trademarks” of GHC’s natural resource program. Instead of a taking a heavy theoretical approach to the environmental sciences, the natural resources program utilizes an applied approach, where concepts and principles are integrated into field and laboratory applications. Much of the instruction and learning is done in the field and through cooperative work experiences allowing students to gain natural resources skills while working for local agencies.

As of the Fall 2008, program options offered through the Natural Resource Program at GHC include an Associates of Applied Science in Natural Resources Technology; Certificates of Completion or Achievement in Watershed Restoration, Watershed Assessment, Fisheries and Wildlife Management and as an Aquaculture Technician or Forestry Technician. By teaching students technical skills to go along with their knowledge, GHC is preparing their students to work in a range of careers that are in-line with sustainability, including: wildlife biology, ecology, fisheries, forestry, water quality, environmental science, and watershed management.

Model Watershed Project

The Model Watershed Project (MWP) educates and promotes sustainable concepts such as watershed and ecosystem health, water quality, sustainable natural resource management, and stewardship. The MWP encompasses educational activities at the physical site - a semi-natural area of the Grays Harbor College campus surrounding Lake Swano - that serves as an outdoor extension of the instructional facilities of the college and an educational and recreational resource for the community. The project site encompasses trails, wetlands, forest habitat, streams, a lake, and a hatchery that provide unique educational resources. It is simultaneously an instrument for teaching the principles of ecology and natural resource management and a model of watershed restoration and stewardship. It is a portion of the Alder Creek watershed, where numerous
examples of natural watershed functions, detrimental human impacts, and restoration practices occur. The goal of the Grays Harbor College Model Watershed Project is to develop a safe and accessible outdoor extension of the instructional facilities of the college and the 14 school districts it services, while restoring and preserving natural watershed functions and values to the site.

To accomplish these goals the Model Watershed Project aims to:

- Enhance, preserve, and protect the natural watershed ecosystem;
- Collect and make available watershed curriculum materials to local teachers;
- Provide in-service environmental education training's for local K-college teachers;
- Provide interpretive trails for K-college students and the public;
- Heighten general awareness about the "holistic" nature of watersheds and;
- Allow the general public to enjoy the trials, lake, and watershed area.

Additionally, natural resources students learn about water quality by regularly monitoring Alder Creek & Lake Swano, biology students learn about habitats, and the college aquaculture center is running a successful hatchery program. The Grays Harbor College Model Watershed Project site is a "living laboratory" in which all people can learn more about the value of watersheds and how to care for them.

*Coastal Resources Learning Center (CRLC)*

As part of Grays Harbor College, the Coastal Resources Learning Center (CRLC) represents the college in all outreach efforts and utilizes the MWP to carry out its mission, goals and objectives. Promoting understanding, awareness, and education of watersheds is one way the CRLC advances sustainability. With a mission to foster the sustainable use of coastal natural resources through community-based education, science and technology, CRLC was started by the GHC natural resource department and the Model Watershed Project. The CRLC is dedicated to the establishment and implementation of education, research, restoration, and technological initiatives to enhance our understanding of the value of coastal natural resources and the identification of means to maintain their integrity and availability for future generations.

From 2007-2009 evolving funding sources allowed the CRLC to expand its reach to include another aspect of sustainability through providing Grays Harbor County Solid Waste and Recycling Outreach. (At the time this report was started, this contract was in place. At completion of the report this contract had ended due to the budget crisis at the County. All county-supported activities related to waste reduction and recycling have been suspended awaiting further funding. These include implementing recycling programs at area schools, working with area schools on sustainability and many of the classroom presentations focusing on reducing waste by sustainability campaigns, composting or recycling.)
The Pacific Education Institute (PEI) is collaborating with the CRLC through a National Oceanic and Atmospheric Administration (NOAA) B-Wet grant. Through this partnership, the CRLC and PEI will include a focused middle school field science inquiry as part of the Watershed field studies, as well as prepare teacher workshops for middle school (6th-9th) teachers who are interested in bringing more field science and inquiry to their students. PEI and the CRLC are also providing opportunities for area high school students to complete their senior culminating projects in natural resource related projects by recruiting and training mentors from organizations and businesses involved in the natural resources fields. Support for the Model Watershed Project is also being renewed through this partnership. By working with area high school students this partnership is fulfilling the intention of the CRLC to “enhance our understanding of the value of coastal natural resources.”

A diverse range of partnerships and funding sources allows the CRLC to work on outreach efforts related to sustainability issues across the spectrum, with a broad range of people of all ages. The CRLC reaches K-College and beyond through its programs, covering topics that include the Chehalis watershed, school and campus sustainability, waste reduction and recycling, the water cycle, watershed education, composting, the salmon life cycle, ecosystems, natural resources, water quality monitoring, stewardship, etc. The CRLC will continue to seek partnerships and funding to continue and expand current outreach programs.

Currently, the CRLC houses a Coastal Resources Outreach Specialist and three Americorps environmental education volunteers. Part-time volunteers also include one cooperative work experience student, one “Work First” work study student and more than 12 community and student volunteers. The next section will provide more detail about the largest components of what the CRLC is doing to spread sustainable concepts to the college and community.

*Environmental Education Outreach Grant Program*

The CRLC uses the Model Watershed Project (MWP) in environmental education outreach efforts. With the help of the CRLC staff, area K-12 school teacher and natural resource program instructors use this site to enhance lessons of salmon life cycle, ecosystems, natural resources, geology and water quality monitoring. The MWP supports water quality
testing and is a resource for classes not only at the college, but for the surrounding school districts.

With joint funding from the Grays Harbor College Foundation through the John M. Smith Trust, Grays Harbor County, and Pacific Education Institute, the CRLC offers Educational Grants to teachers of grades 3-8 in Grays Harbor and Pacific Counties. Program staff visit classrooms to present two or three separate one hour and 15 minute lessons on the Chehalis watershed, sustainability, and waste reduction and recycling. In the spring, classes visit the College’s Model Watershed and explore the diverse plant and animal communities found along Alder Creek and Lake Swano trails. A small microcosm of the much larger Chehalis Watershed, the Model Watershed teaches students about the “story of nature’s recovery over time.”

Trained educators provide comprehensive lessons and activities worth over $650 at no cost and grant recipients are able to designate a “partner” class who will also receive classroom lessons and accompany their class to the field study. Each teacher that participates is able to choose from the following 14 classroom presentation options:

1. Overview of the Chehalis
2. Incredible Journey – Water Cycle Education
3. Watershed in Your Hand
4. Rainy Day Hike
5. Single Cart Recycling
6. Single Cart Recycling Implementation Program
7. Vermicomposting
8. Waste Free Holidays
9. Litter Reduction Service Activity
10. Waste Audits
11. Paper Recycling
12. Smart Shopping
13. Storm Drain Stenciling Service Activity
14. School Sustainability

Summer Watershed Leadership Program (SWLP)

Each year, 8-15 Grays Harbor youth are involved in a five-week summer job training program called the Summer Watershed Leadership Program (SWLP). 2009 will be the third summer the CRLC has offered the program that naturally fosters learning of sustainability concepts through engagement and exposure to the field of natural resources. CRLC program staff train and engage local Chehalis Basin youth in stewardship activities around the lower Chehalis Basin, specifically in Grays Harbor County. The youth are involved in estuary,
beach, and riverside cleanups, restoration activities and invasive species removal. The youth gain work in the natural resource field and exposure to natural resource professionals from GHC and partner organizations.

In efforts to sustain and perpetuate the goals of the SWLP, participants then pass along their learning and service through a four day Alder Creek Day Camp where they serve as youth counselors to area grade school aged children. Each participant researches, implements, and presents a project at the senior culminating project level. Students also have ongoing contact with the program throughout the year by participating in community events and projects such as tree plantings, the Grays Harbor County Fair, the Shorebird Festival, the River Festival and the Chehalis Watershed Festival.

Hosting Environmentally-Oriented Events

*Chehalis Basin Educational Consortium Student Congress*

For eight years Grays Harbor College has partnered with the Chehalis Basin Educational Consortium to host the Student Congress, where over 200 students from across the Chehalis watershed gather to share their water quality testing data, participate in the state of the river sessions, and water-related activities, ultimately creating and committing to their own list of recommendations to increase water quality across the Chehalis basin.

*Regional Summit for e3: Education, Environment, Economy*

On March 1st 2008, GHC hosted the Grays Harbor-Pacific-Lewis E3 Regional Summit on Sustainability Education. The summit included action-oriented strategy sessions designed to get input from leaders and constituents to so ensure environmental and sustainability education meets the unique needs of schools, communities, and businesses throughout the state. In attendance were more than 75 key leaders in education, state, and community-based programs, agencies and businesses from...
across the three-county area. The input collected from our regional summit was then reported back to EEAW to be included in the comprehensive state-wide e3 plan.

The Washington State Comprehensive Environmental Education Planning Process was implemented with help from the Environmental Education Association of Washington (EEAW). The mission of e3 is to optimize environmental education for everyone who lives, works, and plays in Washington State—to create thriving environments for schools, communities, and businesses. The vision of e3 is to inspire community behaviors, business practices, legislative policies, and educational opportunities that support sustainable and thriving environments for everyone in the state of Washington. For more information on e3 Washington please visit the state-wide website at www.e3washington.org.

Annual Earth Day Fair
This year again marked Earth Day with a fair and volunteer work day at the college. The Sustainability Committee in cooperation with the CRLC and the PTK Honor Society (a student honor club) hosted an Earth Day Fair on April 22nd, 2009. Past Earth Day Fairs have included themes and activities such as recycling; finding your carbon footprint, making your own recycled paper and worm composting. This year’s event was no exception with the addition of a trail work day, and a clothing exchange event. This Earth Day celebration is slated to become an annual event.

Recycling Outreach and Implementation

Following Grays Harbor Colleges’ work to implement and promote a recycling program at the college, the CRLC with support from the County worked with area schools to implement recycling programs across districts. Many Grays Harbor County schools were able to take advantage of in-classroom support as well as technical support to determine placement of recycling bins and coordination of pickups for recycling. Funding for this program from the County has ended due to budget cuts, so efforts to help additional schools implement programs have been suspended.
College Sustainability Initiatives

The CRLC works in conjunction with the Campus Sustainability Committee in that the CRLC Outreach Specialist is currently the Chair of the Sustainability Committee. Americorps volunteers of the CRLC also participate and work in conjunction with the committee to provide ideas, support and receive feedback on sustainability projects and activities they are working on.

The completion of this Institutional Footprint Project is one of those projects. CRLC staff has collected and researched information on the current state of sustainability in higher education, previous efforts on the GHC campus and recommendations on how to move forward. These recommendations are based on evaluation and analysis of where GHC is currently, and the ambitious direction that GHC is capable of taking.

The Sustainability Committee has recently turned its efforts toward achieving national recognition from the Arbor Day Foundation by taking steps to become the first “Tree Campus USA” in Washington State. Members of the Sustainability Committee are working to meet five standards required by the National Arbor Day Foundation. It is anticipated that a finalized application will be submitted in the fall or winter of 2009. Besides the obvious benefits to our environment, there are many great benefits in planning the management of our campus trees. For example, trees and forests provide spaces for students and faculty to relax and take a break, help our campus reduce our overall carbon footprint because trees aid in carbon sequestration and instill pride in our students, faculty and community. The five standards and how they are being addressed are as follows:

1) Campus Tree Advisory Committee- The Sustainability Committee will serve as the Campus Tree Advisory Committee with the addition of a community member such as a local city forester or arborist.

2) Campus Tree Care Plan- GHC Natural Resources Program Sustainable Forestry faculty, Grounds Maintenance Crew lead, CRLC Outreach Specialist and others will put together a tree care plan for both campus and model watershed trees.
3) Campus Tree Program with Dedicated Annual Expenditures- the minimum requirement for annual expenditures is $3 per full-time enrolled student. This should be a low budget expenditure in the range of $4000-5000. Currently, this number is being exceeded many times over as expenditures include for example, cost of trees purchased, labor for tree planting and maintenance, volunteer labor, staff time, public education etc…

4) Arbor Day Observance- April 22, 2009 was our first Arbor Day observance which coincided with our Earth Day Celebration.

5) Service Learning Project- As part of our Arbor Day observance and Earth Day Celebration we had a trail work day with over four dozen students, staff, faculty and exempt employees involved (Tree Campus USA Summary of Standards).

Watershed Management with the Chehalis Basin Partnership

GHC houses one full-time Watershed Facilitator to work with a watershed planning group called the Chehalis Basin Partnership (Partnership). The Partnership was formed in 1998 after the Washington State Legislature passed the Watershed Planning Act (Ch. 90.82 RCW). The purpose behind forming a watershed planning group was to provide a framework for local citizens, interest groups, and government organizations to work collaboratively to identify and solve water-related issues throughout the Chehalis Basin. Currently, Janel Spaulding works as the Watershed Facilitator, who works with the Partnership to develop and implement education and outreach activities to get citizens involved in watershed planning and management. Some of the projects being worked on in the next two years include coordinating and hosting the Chehalis Watershed Festival in Aberdeen; developing a Centralia Stream Team with hopes of expanding the program to other areas of the basin; coordinating tree plantings and stream clean-ups; and staff support to the Partnership and its committees. All of these projects are aimed at increasing citizen awareness and appreciation for the Chehalis Basin Watershed and its wide range of natural resources.

Where to Go From Here: Approaches to Providing Recommendations

As the section on previous and on-going sustainability efforts illustrates, Grays Harbor College has made significant progress toward sustainability by “greening” campus practices with participation of the administration, campus operations, academic departments, faculty, campus programs, clubs, staff and students. Representing the College, outreach efforts through the CRLC are also spreading sustainability concepts, issues, and practices to the local community. We must celebrate these efforts while also considering ways to move forward in increasing GHC’s sustainability efforts. Local and global pressures make sustainable solutions urgent. In order to provide useful recommendations, this section uses multiple approaches that include laying out:
• What successful sustainability programs at higher education institutions look like, their benefits, and how GHC can use their models to create a customized, sustainable program that meets the College’s unique circumstances.
• What obstacles and challenges colleges and universities face in moving towards sustainability and how GHC can address these directly and create a system for easy access to sustainability resources, information about current campus efforts, and ways individuals can get involved.
• Summarize and consider ideas of how to implement brainstorming sessions that have already occurred at GHC.

With an admirable and ambitious aim to achieve carbon neutrality, it is important to acknowledge that simply aiming to reduce the College’s carbon footprint is not a holistic approach to achieving sustainability. We propose that the College works towards this goal, but also expands its sustainability goals to more inclusively address all three pillars of sustainability: ecological, economic, and social.

Recommendations in this section are meant to provide a multitude of ideas about how to achieve these broader visions and goals of campus sustainability. It is evident that the staff has a vision of sustainability for GHC, as many have expressed interest in becoming a model of sustainability in Grays Harbor. GHC has the potential to be a driving force and example to the community of Grays Harbor in how to implement sustainable or “green” practices to address social, economic, and environmental issues on the local scale at the college and in the community.

It is useful to note that many of the recommendations and ideas discussed in the following sections overlap significantly. Using multiple approaches provides a diversity of perspectives and methods to draw on. The Summary and Recommendations section of this report will provide a more structured summary of the ideas and recommendations discussed throughout this section.

**Successful Sustainability Programs**

As more institutions of higher education strive to establish progressive sustainability programs on their campuses, outside research and associated organizations are also doing their part to provide resources about establishing, monitoring, evaluating, and recognizing.
successful sustainability initiatives. AASHE’s Sustainability Tracking, Assessment & Rating System, the American College University and President’s Climate Commitment, and the Arbor Day Foundation’s Tree Campus USA are just a few examples discussed within this report.

The Campus Sustainability Assessment project (CSAP) is another example. The CSAP website explains that most outstanding institutions addressing sustainability issues share three important characteristics. The CSAP was founded in 1999 to address the limited availability of high-quality resources for supporting colleges and universities in evaluating their social and environmental performance. Through extensive surveys of the literature and the campus sustainability assessment (CSA) corpus, and through correspondence with leaders in the field, the CSAP identified “gaps” among available resources and has used this information to create materials to close these “gaps.” The three important characteristics of the most outstanding institutions addressing sustainability issues are:

- “First, these ‘sustainability leaders’ have adopted serious strategies for systematically addressing the sustainability of the institution. They have policies stating their commitment to sustainability goals, and they have specific plans in place that explain how they intend to achieve them.
- Second, these institutions have provided the resources needed to implement their sustainability plans. They hire staff, form committees, allocate budgets, and show clear administrative support for sustainability initiatives.
- Third, these sustainability leaders know where they have been, where they are, and where they are headed in terms of sustainability. They measure and track their progress toward sustainability, and regularly meet and update goals and targets (Western Michigan University).”

Higher education Institutions that share these characteristics are generally recognized as exceptional institutions with a strong commitment to sustainability. Almost universally, these institutions have performed some kind of campus sustainability assessment. We are hoping that this Institutional Footprint Project will serve an important role in propelling GHC to achieve this kind of exceptional recognition and standing among institutions of higher education. The CSAP website outlines many other benefits that can result from utilizing a campus sustainability assessment framework, in addition to facilitating the “greening” of an institution. Listed benefits include:

- Reduce costs of operation and maintenance (reduce life-cycle costs)
- Ensure the long-term success of an institution by enabling campus decision-makers to take measures that will prevent social and environmental issues from endangering the institution’s viability
- Provide valuable service-learning opportunities to students
- Support regulatory compliance
- Reduce liability risk
Institutional Footprint Project

- Enhance the quality of the working and learning environment
- Build a more vital campus community
- Promote improved relationships between the institution and business and political leaders
- Enhance an institution's public image as a "good citizen" of society
- Attract and retain high-quality students and staff
- Provide opportunities for staff, students and faculty to work together to solve real-world problems on campus
- Promote interdisciplinary thinking, analysis and problem-solving across campus
- Identify "best practices" and benchmarks for cross-institutional dialogue
- Help foster the creation of a culture of sustainability (Western Michigan University).

Without debate, these are desirable benefits that would improve the College. The following sections will provide ideas of how GHC can realistically work towards fostering the three characteristics described above.

1. **Serious strategies for systematically addressing sustainability of the institution.**

   The CSAP website explains that “Ideally speaking, a higher education institution will have in place a well-supported, *campus-wide comprehensive sustainability management system.*” The key words within this statement are “systematically” and “management” (Western Michigan University). This implies that some kind of system needs to be created. Logically, this system should be sustainably designed to maintain itself and continually assess its effectiveness and whether or not the campus is achieving its objectives, goals and targets. The term management implies that this system needs a structure to manage its initiatives. Initially, this may seem an overwhelming task, but GHC already has major components of a system in place.

   The Sustainable Campuses website explains that a successful endeavor to transition to a sustainable or green campus involves four aspects of the college community- the administration, academic departments (students and faculty), the university research, and the local community. It also explains that some type of committee or council, that includes representatives from every department on campus, is needed in the beginning in order to share information, understand issues and concepts, and develop plans for future initiatives. This committee, council or office of sustainability coordinates planning initiatives, projects, networking and monitors the program’s progress in achieving its goals (Sustainable Campuses).
If we use this as a reference to apply to GHC, it provides a rough sketch of the aspects that we should involve in the development of our own campus-wide comprehensive sustainability management system. Again, the four aspects of the college community include: the administration, academic departments (students and faculty), the university research, and the local community. In order to apply this to GHC, it must be taken into consideration that community colleges do not have robust research programs similar to universities. However, GHC’s many technical trade programs and resources serve as a substitute. The alternative energy “demonstration” projects also fit into this category.

The GHC administration is already committed and involved in sustainability initiatives as there is an active sustainability committee. This project intends to provide the beginning foundation in understanding issues and concepts, sharing information, and developing ideas for future planning. Currently, there is little formalization of the roles of the committee. This resource provides suggestions of what some of those roles might be. Committees, councils, or offices of sustainability often oversee:

- Coordination of planning initiatives, projects, networking
- Monitoring of the program’s progress in achieving its goals
- Delegation of responsibilities

Formalizing the role of the sustainability committee by creating a mission statement, goals or objectives, and procedures could help GHC define and work towards specific sustainability goals.

Staff and students across academic departments also have a role to play in achieving campus sustainability. It is suggested that there be representatives from every department on campus. This can ensure input from diverse perspectives and provide constructive criticism that those immersed in the “sustainability movement” may not realize.

Facilitating and promoting sustainability initiatives in the local community are another aspect of successful endeavors to transition to a sustainable or green campus. This suggests that the college make a concerted effort to initiate community partnerships, events and participation to engage and lead the local community towards sustainability.
Multiple efforts and organizations throughout Grays Harbor are implementing sustainable practices in their business practices and mobilizing the community toward increasing levels of sustainability.

2. Provide Resources needed to implement sustainability plans

With severe budget cuts, GHC faces a considerable challenge in providing resources necessary to implement sustainability plans. This doesn’t mean that it is impossible, but calls for innovative approaches. In fact, the College has already taken steps in the right direction. Institutions recognized for sustainability “hire staff, form committees, allocate budgets, and show clear administrative support for their sustainability initiatives.” As the section on previous and ongoing sustainability efforts at GHC describes, the administration has shown clear support and several committees addressing sustainability are active on campus. The challenge of creating a campus-wide comprehensive sustainability management system without funding to hire staff and allocate large amounts of the budget toward sustainability provides an exciting opportunity for innovation.

Instead of hiring additional staff, different possibilities include:
- Drawing on committee and volunteer support,
- Distributing responsibility to individual departments,
- Developing innovative service-learning programs and/or work-study positions that utilize and engage students, while also providing valuable experience and skills.

This list provides innovative ideas to mobilize and develop a sustainability management system by utilizing existing resources. Many members of the GHC community are personally interested and committed to increasing the sustainability in
their own lives and developing larger sustainability strategies. Mobilizing this enthusiasm and energy is one way to advance sustainability on the GHC campus. Oftentimes the roles of hired staff in offices of sustainability are to gather, measure, and report information on sustainability initiatives across campus. For a person uniformed of the specific processes, procedures, and knowledge of each department, it is very time consuming to gather and report information on numerous initiatives of different departments. It is much easier for a person within a department to report on its own efforts and assign one person with the responsibility of gathering and distributing information for the college and Grays Harbor community. By distributing responsibility to individual departments, the work load is divided more equally across staff and the need for an office or position solely dedicated to sustainability could be mitigated.

Another way the college can mobilize human capital during a time with budgetary restrictions is to develop service-learning programs and/or work-study positions that utilize and engage students, while also providing valuable experience and skills. To avoid paying high salaries to sustainability career professionals and contracting firms, there is a wealth of creativity, knowledge and skill students possess and are capable of using to help further sustainability at GHC. This would also contribute to promoting the social aspect of sustainability by preparing students with real-life skills they can take to the workforce. Additionally, the field of service-learning is growing and has a wealth of funding sources that could help GHC develop a service-learning program to train staff in how to facilitate successful service-learning courses.

3. Regularly measure and track progress toward sustainability and meet and update goals and targets.

Any effort to "green" an institution requires understanding where it is achieving sustainability objectives and where it is not. The CSAP website explains that an aspect of a campus-wide comprehensive sustainability management system involves a formal process to periodically (or continually) assess the institution’s sustainability performance. This entails gathering baseline data related to the institution's social and environmental performance and using this information to:

- Identify problem areas and opportunities for improvement
- Help to set viable sustainability goals and targets
- Compare the institution’s performance to these goals and targets, and
- Track changes in performance over time.

As described in the section Sustainability Frameworks for Colleges and Universities, there are several frameworks institutions of higher education are using to assess,
monitor, and recognize their progress. As this report is intended to convey the broad scope of how far institutions are going to implement campus sustainability, it is not a complete survey of the assessment and monitoring frameworks and programs available.

We suggest that more research be conducted on campus sustainability assessment frameworks in order to carefully consider what will work best for GHC and its objectives, goals and targets regarding sustainability. These frameworks require differing degrees of assessment and reporting requirements. AASHE’s STARS (Sustainability Tracking, Assessment & Rating System) is a very thorough tool that would likely require much more time and work than the American College and University President’s Climate Commitment. It is important to understand the requirements of each of these frameworks before signing on. More comprehensive research is needed to identify additional options and evaluate the pros and cons of each framework to maximize benefits. (This could be part of the next PHASE II.)

To avoid reinventing the wheel, evaluating where current efforts are already being made and how those could be incorporated or used in these frameworks would also be wise. For example, in regard to energy consumption, the benchmarking process being conducted by Kevin Howerton at Grays Harbor PUD will provide baseline data. This will likely fulfill the requirements of a framework or might be able to be slightly modified to fit. These kind of considerations are important to consider in order to maximize labor.

Obstacles and Challenges to Campus Sustainability

Large missions and limited resources make it difficult for colleges and universities to prioritize and allocate resources towards achieving sustainability. Understanding some of the common obstacles to attaining a sustainable campus is useful to consider in a successful planning and implementation process. On the Sustainable Campuses website, there is list of obstacles and challenges to campus sustainability that include:

1. Understanding the significance and urgency of sustainable development
2. Availability of information resources
3. Cost of consumption virtually invisible
4. Perceived insignificance of the role of the individual
5. Actions devoted to conservation perceived as more cost than benefit
6. Conservation perceived as doing without (Sustainable Campuses).

When taken collectively, an underlying theme of these obstacles and challenges is lack of information and awareness that warrants a concerted effort to inform and educate about sustainability and surrounding issues. The following section will use these six challenges as a way to direct discussion and brainstorm about ways to address them.

*Lack of Awareness and Knowledge*

Ultimately, many lack an understanding of the global environmental crisis facing our society. The rapidity and seriousness of climate change is misunderstood. Shifting temperatures, growing intensity of storms, and rising sea levels are all evidence of climate change. The pace of climate change and its effects are unpredictable, making it difficult to adapt to. Centralized food production systems intensify the threat of overall food scarcity. Adequate air and water quality are threatened. With a growing world population, demand on finite natural resources is increasing. Dramatic inequality between rich and poor create a potentially volatile political climate. If not addressed immediately, future generations will face yet more risk. All these point to the urgency of sustainable development and renewable energy solutions.

This lack of understanding is compounded by the misperceptions about the role of the individual, costs and benefits of conservation, and the concept of conservation. Each individual has a role and responsibility to play in achieving sustainability. Many people are discouraged in thinking their personal efforts are not really making a difference and therefore not worth the effort. This could be countered by educating, providing, and promoting information on how individual actions put together make significant impact. Identifying and sharing these data and statistics could go a long way in helping people understand how important individual choices they make can contribute to sustainability. Distributing practical tips could, such as the “Tip of the Week” can also spread the word about ways to be more sustainable. When viewed from the perspective of a total organizational effort, these small individual efforts can add up and save thousands of dollars.

Oftentimes conservation is perceived as doing without and that costs of conservation outweigh benefits. Again this comes down to a misunderstanding or lack of information and can also be related to the lack of consumption information. Many think that conservation means being cold in the winter, hot in the summer and working in dimly lit working areas, but this is a misperception. Conservation is more about efficiency-- or optimization of resources used. Instead of calling it energy conservation, it is useful to use the term “energy management.” According to the Sustainable Campuses website, “energy management
focuses on eliminating energy waste and optimization of the use of energy when it is needed. There is a lot that can be saved just by eliminating waste before we get to reducing the level of service. The green approach allows for improved working and learning spaces while reducing the cost of utility resources significantly."

Determining costs and benefits of conservation is difficult because it oftentimes requires complicated calculations and ultimately boils down to a judgment of value. In economic terms, the real cost is “the cost of producing a good or service, including the cost of all resources used and the cost of not employing those resources in alternative uses.” Currently, many prices we pay for goods and services do not reflect the real cost of production and distribution. Determining the value of different benefits or consequences is also complicated. For example, how do you put a price value to environmental harms or health impacts resulting from pollution? Instead of focusing on the exact costs and benefits of sustainability and conservation, it may be useful to shift the focus to instilling and promoting an environmental, economic and social conscience. This could be promoted in a variety of ways including encouragement by faculty, part of a yearly campaign, tips of the week, or even a course requirement.

Born out a conversation with Natural Resources professor Todd Bates, the concept was proposed that the every student receiving a higher education degree should receive formal education regarding sustainable development, environmental issues facing our society and potential solutions. To ensure GHC students leave with a certain level of environmental literacy, it is reasonable to suggest implementing an environmental curriculum component as a requirement for ALL students to receive a degree. To expand the reach, providing a sort of required staff training addressing sustainability issues could also help to establish a common understanding.

Of course, these suggestions are long-term goals that will take a significant amount of time to implement. Fortunately, GHC already offers a natural resources department has well-qualified faculty and a course named “Environment and Society” that could serve the purpose, without much modification. Perhaps an ambitious goal, preparing and providing
students with the knowledge and ideas of how they can personally make a difference would be strong evidence of GHC as a higher education institution committed to sustainability.

**Availability of resources information**

Availability of resources information resources also presents a significant challenge. Information is spread out and it is difficult to find information on these topics all in one place. Many people understand a little bit about different aspects of the issues, but are often unable to see the larger picture. Misinformation also presents a challenge. Identifying reliable and accurate resources and creating a sustainability resources guide online would be a good start. To expand on this idea, a section of the GHC website could be dedicated to sustainability.

Over time, the Sustainability section on the website could be developed and expanded with the help of students through service-learning and work study programs. Some possibilities for the website could include:

- Annotated lists and summaries of sustainability concepts and resources
- Information on what GHC is doing in regards to sustainability
- A forum for discussion and ideas

An online system or forum for sharing this information would allow everyone on campus easy access. Creating this system could be a collaborative effort between staff and students. As part of service-learning courses, students could be required to identify, summarize and evaluate sustainability resources to be included on the website. Content could also be created to summarize and provide information on sustainability issues and concepts such as: building and land development, transportation, water use, energy use, environmental protection and restoration, facility operations, waste management, indoor environmental quality, etc. If a system where each department was made responsible for reporting on their sustainability initiatives, like proposed in the *Successful Sustainability Programs* section, information on what GHC is doing in regards to sustainability would be easy to provide in an online format.

Fostering discussion and sharing of ideas has become more common through online social networking sites and blogging. Utilizing these free resources would be an inexpensive way to facilitate these discussions and information sharing. A possible work study position could be created to coordinate and monitor content and facilitate further inquiry. To enhance participation and use of this forum, teachers could encourage or require participation. In an information age, this would also promote a familiarity of online communication techniques that will prepare students for life after college.
Gathering information about ongoing sustainability efforts at GHC illustrated how difficult it can be to track down information. This reinforces the idea that GHC needs to create a system for easy access to sustainability resources, information about current campus efforts, and how individuals can get involved. It would also be worthwhile to promote these resources as part of a yearly campaign, which will be discussed in more detail in the conclusion.

Cost of consumption virtually invisible

Large amounts of money are spent to run institutions of higher education, yet it is rare to publish the cost of utility resources. Most of the time, only a few administrators know how much money is spent on energy, water and waste management. Often times this can lead to ambivalence concerning utility consumption. Making this information available to individual departments and/or buildings could promote more accountability and transparency. One idea is to develop some kind of friendly sustainability competition to get faculty and students excited about sustainability and conservation. If possible, rewards and/or incentives could provide additional motivation.

Application and Distribution of Brainstorming Ideas

The theme for Fall Kick Off 2007 was Building a Sustainable Grays Harbor College. Dr. Mark Milliron, former Director of the National Institute of Staff and Organizational Development at Univ. of Texas – Austin, was the featured speaker on the topic of “Emerging Technologies and Sustainable Instruction.” All employees participated in Sustainability Conversations during the afternoon session and developed suggestions for ways the College could engage more fully in sustainability. Staff was divided into six groups to discuss ways to approach different aspects of sustainability on the GHC campus. Each group covered one of the following topics:

1. Programs/Curriculum
2. People
3. Budget/Purchasing/Facilities
4. Student Success
5. Conservation/Recycling
6. Technology

Notes from the sessions held on Wednesday, September 19, 2007 provide a wide range of ideas, representing broader ideas and more specific practical tips, some of which have been initiated or completed. It is apparent that the staff at GHC have a vision of what sustainability is and could be, along with a wealth of ideas of how to achieve that vision. The objective of this section is to summarize and consider ways to implement these ideas. Pulling out common ideas in the notes illustrates that vision in concrete words, which include:
Service-Learning, Publicize, Empower, Partnerships, Community, Collaboration, Model, Relevance, Transparency, Engagement, Info-sharing, Repetition

Unsurprisingly, this combination of words illustrates that many of the ideas outlined in this document were already here in the sessions during 2007. It also speaks to the need to somehow facilitate the sharing of ideas and to transform them into action.

This section will summarize the ideas discussed in these brainstorming sessions according to topic. Given the sessions were held by separate groups, many ideas overlap. This section is intended to layout the ideas for everyone to see and gain their own ideas from. The final section of this report will pull together a more structured summary of the ideas and recommendations discussed in this and previous sections.

Programs/Curriculum

The discussion in this group started by talking about how to sustain GHC for students now and in the future, with a desire to respect the past but help students deal with current and future realities. A broad range of ideas were thrown out including: integrating disciplines; technology; training; responsiveness; articulation and promotion of interaction with community needs; reflecting model of social, economic, and political justice/equality; being proactive; having high schools teach us; a partnership with the Department of Corrections to help rehabilitate inmates; allowing students to utilize and showcase their talents; technical instruction and training for faculty and staff; flexible curriculums; staying on top of changes in 4-year expectation/transfer opportunities; and rethinking “programs” and “courses.”

This list outlines a diverse set of ideas, many of which could be fostered, enhanced or developed through service-learning methodologies. Well designed and implemented service-learning programs encompass articulation and promotion of interaction with community needs, creation of partnerships, and the opportunity for students to utilize and showcase their talents. Service-learning also encourages students to take a proactive role in their learning and faculty to be flexible and responsive to individual interests and needs.

People

Ideas discussed on the topic of people and sustainability include: Bringing international/globalization to the local community; promoting diversity in staff and students; identifying opportunities for local people to reach outside our community; developing international student programs; attracting more local students of all ages; increasing flexibility in response to the increased velocity of change; monitoring and ensuring relevance of offerings and approaches; supporting the college with appropriate staffing; offering competitive salaries; considering the college culture;
balancing internal and external promotional opportunities; developing and offering community service classes; providing career counseling for all staff; providing training to support technology; maintaining professionalism; creating an environment that empowers staff; increasing partnerships with the community; using intranet and web resources such as blogging; publicizing college happenings; creating more collaborative opportunities and follow through with velocity; creating a culture of inquiry in how data is collected and used, having GHC staff and students and the community be knowledgeable about all sustainability areas; GHC serving as a model for sustainability and educating the community.

Another key idea brought up during this section is that the college is not utilizing data gathered by GHC staff. This is evidence that the current system for information-sharing is inadequate and can be improved. The mention of technology and this fact would provide support for a website and/or list-serve to distribute pertinent information.

Within this list of ideas concerning people and sustainability, there is an emphasis on involvement with the community, partnerships and collaboration. Identifying opportunities for local people to reach outside our community; developing and offering community service classes; and increasing partnerships with the community are all evidence of a desire to interact with the local community in a mutually beneficial way. Service-learning programs facilitate articulation of issues in the community and productive ways to address them. Service-learning programs also often create lasting partnerships where a consistent flow of students are able to work with a particular organization related to their field of study each year. Service-learning programs and community partnerships can also be useful in promoting a positive image and recruiting as hands-on learning is attractive to many students.

Another theme found in the list above concerns diversity and inclusivity in age, race, and nationality, with notions of increasing access to non-traditional populations and broadening perspectives through international programs. If pursued, these objectives would support the social aspect of sustainability by encouraging and supporting a wide range of populations.
The idea listed about having GHC staff and students and the community be knowledgeable about all sustainability areas would support the idea of an environmental curriculum requirement for ALL students. This would be a strong indicator of how GHC serves as a model for sustainability and educating the community.

Budget/Purchasing/Facilities

This group discussion started out by looking at the big picture, wanting to provide relevant and quality programming that meets student/community needs, while balancing revenue to operate and continue to reinvent ourselves. Other large-scale ideas include: long-term building planning, strategic positioning, and transparency and a feedback loop in the budget process. Possible decision criterion for deciding how and what is funded and/or feedback about how decisions were made and why things were not funded was also brought up.

Ideas about how to cut down paper use in the purchasing process include streamlining the process by making the process electronic with digital signature and minimizing hard copies. Purchasing environmentally friendly products such as 100% recycled paper, biodegradable soaps, and recyclable toner was another topic of discussion. Recycling budget books was also suggested, as people can download the sections as needed.

Regarding facilities, elements of the LEED design such as solar panels, natural light, recycling water, wind turbines, etc were discussed. Again, the desire for GHC to lead by example and educate others to do the same was mentioned. Drawing on GHC’s Natural Resources programs and facilities such as Lake Swano trails, the fish hatchery, Satsop Forest Management Project could provided hands-on learning opportunities that will prepare students for sustainable jobs in the future. Pooling resources by partnering with business agencies is a way to help manage a tight budget, while telecommuting and teleconferencing can reduce travel costs.

Many of the ideas in this section have been or are currently being addressed, such as long-term building planning with consideration of LEED certification, methods for decreasing paper use, buying environmentally responsible products, and utilization of GHC’s natural resource facilities. A noticeable area for improvement would be
promoting transparency and a feedback loop in the budget process. Making energy and utility costs transparent and/or giving department heads more responsibility to keep costs in check by mandate or fun competition could promote increased accountability.

**Student Success**

Central to the discussion about sustainability and student success was about how to define success. What does success mean? If students are happy while they are attending GHC? Graduation rates? Employment? Enrollment? One suggested characteristic of sustainability is changeable with the student in that retention is a by-product of success for the college and for students. (Another idea is that maybe it shouldn’t be about defining “success” but identifying and creating the environment and resources needed to support success.)

Concerning students, controlling the cost of education and open source text books were brought up, along with the need to educate students about sustainability so they can carry it with them after GHC. Many students don’t know about sustainability and environmental consciousness and so there is a need to educate them. Many people need repetition to remember things. There is also a need to engage students in the discussion and planning. On the GHC administrative side, discussion included program currency and relevance, the need to provide education in a variety of formats to meet multi-generational needs, and the need to maintain a strong link with the community – tradition, pride, reputation – despite rapid change. The suggestion for a website for faculty to share how they are incorporating sustainability into their courses/curriculums was suggested in order to facilitate communication and information-sharing. Providing services to help sustain students’ success beyond GHC is also crucial. It was also asked if we should consider if GHC students and alumni are giving back to the community as a measure of success?

One major challenge discussed is about students of different generations and socioeconomic backgrounds. This calls for a variety of teaching formats, accommodation for different learning styles, and the need to teach students to communicate across multi-generational lines. On the same note, it was asked, “Is the “learning style” really arrested development in a student? Should they be encouraged to achieve success according to a standard?”

Through the GHC Learning Center students are able to get individual tutoring.
Recurrent themes are starting to surface. Again, we hear of the need to educate students about sustainability so they can carry it with them after GHC, engage students in the discussion and planning, and a website to facilitate communication and information-sharing. More support for the ideas of a service-learning program that includes students, a required environmental curriculum component for ALL students and web resources and discussion facilitation on sustainability, current college efforts and ways to get involved. With debate about how to define success, the thought that maybe it shouldn’t be about defining “success” but identifying and creating the environment and resources needed to support various concepts of success, seems appropriate.

Conservation/Recycling

At the time of the meeting in 2007, the recycling program at GHC was being prepared for implementation. Given the change to single-cart recycling, specific details are irrelevant. The possibility of using wood shop waste for people to take home or be delivered to Grays Harbor Paper was touched upon. Cafeteria options for cups and plates were addressed. Ideas for ways to lessen paper waste on campus include; posting or emailing info, sending reports only to people who need them, double sided printing for student labs and faculty/staff, and trying to make more forms/paperwork available online for viewing and printing.

Regarding transportation, it was pointed out that buses have bike racks and a Bicycle Advisory Committee for commuting might be worthwhile. Providing bus passes for students and letting them know they can use them even if they sometimes drive was suggested. Faculty and staff could also benefit with access to bus passes. A possible Vanpool or the options to trade your parking spot for a bus pass were also mentioned. Promoting bikes as a viable mode of transportation is another sustainable direction.

Several other topics were touched upon briefly. Lighting ideas include using long-life bulbs, automatic lights with sensors in new buildings, and turning off lights when class is over. Temperature considerations such as keeping base temperature lower in old buildings, turning off heat in offices overnight, and no heaters in individual offices were suggested. Electronics like printers could be turned off at night and should be EnergyStar approved. Investigating whether it would be more sustainable to install blow dryers instead of paper towels in new buildings could save in the long run. Looking into how old electronics are disposed, whether sold or surplus, is an area for investigation. A discount for bringing your own coffee mug would cut costs and waste.

One suggestion was about tracking statistics and reporting numbers on a website, like how many pounds were recycled in a given period of time. Placing signs above light switches, such as “30% waste recycled! turn off your lights!” could serve as
friendly reminder to conserve energy. Composting food waste on campus in a worm bin was suggested. Community courses on composting and recycling could help educate about waste reduction, recycling, and reuse.

As one of the sustainability emphases defined by the college administration in wake of these discussions, many of the ideas in this section have been considered, implemented and/or discussed more deeply. Paper reduction and energy conservation strategies are well underway but could be reinforced by establishing explicit policies to be distributed to all college staff and provided to new college staff at the time of hire. Policies on new acquisitions could also be established to ensure that in the future, less environmentally friendly products are phased out and replaced by environmentally-responsible products.

**Technology**

Ideas discussed on technology and sustainability include: energy savings regarding technology; recycling products such as hardware and toner; proper battery disposal and/or promotion of rechargeable batteries; how integrating technology into the classroom saves resources; using electronic handouts/memos; implementing double-sided printing; print management options; addressing the upcoming need to integrate visual presentation technologies into all programs with learning objects, artifacts, and projects, using Blackboard for hybrid classes; and surveying students about online registration and habits.

The majority of ideas in this section concern paper reduction, energy conservation, proper disposal, and use of technology to minimize costs. Ideas are straightforward and several ideas are currently being practiced. Keeping up on the latest trends in technology is worthwhile in pursuing sustainability at GHC.
Summary and Recommendations Overview

Sustainability is an extremely broad and complex concept that continues to evolve. Given the scope and potential of sustainability at institutions of higher education, this Phase of the Institutional Footprint Project narrowed objectives to include:

A. Providing an understanding and shared definition of sustainability and identifying a commitment by GHC to work towards that.
B. Reviewing existing campus sustainability frameworks and sustainability efforts made by institutions of higher education.
C. Assessing the sustainability efforts that are currently being implemented at GHC.
D. Providing a set of recommendations and ideas of how to further sustainability efforts GHC.

While environmental and ecological concepts and approaches are critical to addressing sustainability, social and economic spheres must also be considered. Rooted in the notion of sustainable development, sustainability aims to meet the needs of the present without compromising the ability of future generations to meet their own needs. The three E's of sustainability: economy, ecology, and equity remind us that holistic approaches to sustainability consider social justice, environmental welfare, and economic security. Recognizing this, the GHC administration has made a commitment to pursuing sustainability more broadly, but also with foresight into long-term functioning of the college as a successful institution of higher education. Undoubtedly, these commitments will complement each other as GHC strives to achieve its mission as a student-centered institution that inspires academic achievement, prepares an excellent workforce, and fosters personal growth by providing outstanding educational and cultural opportunities for improving lives in a global community.

Increasingly recognized as a crucial direction for institutions of higher education, sustainability programs and approaches are growing. Efforts to research and develop resources on sustainability are on the rise as well. This report includes only an overview and sampling of the sustainability frameworks and approaches out there. We suggest that more research be conducted on campus sustainability assessment frameworks in order to carefully consider what will work best for GHC and its objectives, goals and targets regarding
sustainability. These frameworks require differing degrees of assessment and reporting requirements. AASHE’s STARS (Sustainability Tracking, Assessment & Rating System) is a very thorough tool that would likely require much more time and work than the American College and University President’s Climate Commitment. It is important to understand the requirements of each framework before signing on. More comprehensive research is needed to identify additional options and evaluate the pros and cons of each framework to maximize benefits for the college. Further research into assessment and recognition frameworks will allow GHC to best decide what will most effectively fit our unique circumstances and goals to achieve carbon neutrality and address the three pillars of sustainability: ecological, economic, and social.

Many sustainability efforts at GHC have and continue to take place through participation by diverse departments and means. Several sustainability–oriented committees have and are working to implement sustainability measures and initiatives. With the transition to a single-cart recycling program, waste reduction and recycling programs are being evaluated for success, efficiency, and ideas for improvement. Diverse approaches to energy conservation and transportation have and continue to be implemented. The administration, operations, grounds and maintenance, and the custodial staff have incorporated many sustainable practices into their planning and operation. Natural Resource facilities and programs are being utilized to advance and promote sustainable concepts to the staff and students of the college and the larger community. Identifying synergies in what the college has already done and continues to do will be the most effective way to advance, implement, and gain recognition for its sustainability initiatives.

These efforts provide GHC with a strong foundation to build on. Creating a system to maintain, build and share these efforts with the college and larger community will reinforce GHC’s continued commitment towards sustainability. Recognizing and publicizing these efforts can provide a common understanding of where the college is at in regards to sustainability, as well as provide a resource to move forward in continued efforts to advance sustainability.

**Recommendations Overview**

Three approaches are used to facilitate discussion and brainstorming about ideas and recommendations for future direction. First, components of successful sustainability programs at higher education institutions are explained and used as discussion points on how GHC might be able to create a customized, sustainable program that meets GHC’s circumstances. Second, obstacles and challenges colleges and universities face in moving towards sustainability are explained and used to discuss how GHC can address these directly and create a system for easy access to sustainability resources, information about
current campus efforts, and ways individuals can get involved. Third, brainstorming sessions held as part of an all-campus in-service on sustainability are summarized and used to consider and provide support for desirable directions and recommendations. Many of the ideas discussed within these three approaches overlap. This section provides a more structured summary of the ideas and recommendations introduced through these three approaches.

The concept of GHC setting an example of sustainability and serving model for social and environmental change was reiterated several times, illustrating a common desire and vision for GHC make sustainability a high priority at the college. This suggests GHC needs to exert leadership in adopting the highest attainable levels of sustainability through diverse means. This report outlines the efforts and progress that GHC has made. What is missing is bringing it all together into a more cohesive unit that can be transformed into a sustainable system that documents, assesses, evaluates, and distributes information about the range of sustainability efforts being carried out at GHC.

An intention of this project is to provide a picture of just how many ways sustainability can and is being implemented at institutions of higher education. Recommendations are broad and ambitious and will require ingenuity, innovation and ambition to implement. These are ideas. We are not suggesting that all of these suggestions can or will be implemented over night, but rather that these are some ways that could advance sustainability at GHC and position the college as a leader in the community. By no means are they the only way to proceed. We hope this project serves as a launching point for continued progress and facilitation of more ideas and action.

With a strong foundation in place, this project provides the groundwork to build upon. Information from across campus has been collected and serves as a starting point to formalize its commitment to sustainability by creating a system to maintain, build, promote and share these efforts with the college and larger community. The remainder of this report summarizes ideas, discussion, and recommendations for future strategies, planning and implementation, which include:

1. Conduct additional research on campus sustainability assessment frameworks in order to carefully consider what will work best for GHC and its objectives, goals and targets regarding sustainability.
Utilizing a campus sustainability framework would lend structure, organization, accountability, and recognition to GHC’s sustainability efforts. Each framework requires differing degrees of assessment and reporting requirements and would lend varying levels of credibility to GHC as an institution committed to sustainability.

AASHE’s STARS (Sustainability Tracking, Assessment & Rating System), the American College and University President’s Climate Commitment, and Tree Campus USA are just a few of the frameworks explained in this report. The STARS framework is an extremely thorough tool that would likely require much more time and work to achieve recognition. However it is a more holistic assessment of all sustainability efforts on a campus rather than a more focused commitment to one aspect of sustainability, such as the American College and University President’s Climate Commitment would provide.

Before committing to one of these frameworks, understanding the requirements is key. In order to identify additional frameworks and evaluate the pros and cons of each with intent to maximize benefits for the college, more comprehensive research is needed. Further research into assessment and recognition frameworks will allow GHC to best decide what will most effectively fit our unique circumstances and goals to achieve carbon neutrality and address the three pillars of sustainability: ecological, economic, and social. If chosen, a campus sustainability framework could also provide structure for a comprehensive sustainability management system.

2. Establish a campus-wide comprehensive sustainability management system that is advised and/or directed by a committee with representatives from every department on campus. This would involve formalization of the roles and responsibilities of the committee by creating a mission statement, goals and procedures. Responsibilities of the committee should include prioritization and strategic planning, coordination of planning initiatives, projects, networking; monitoring of the program’s progress in achieving its goals; and delegation of responsibilities.

Various sources discussed in this report advise the creation of a comprehensive system or plan to address sustainability on a campus-wide basis. The CSAP (Campus Sustainability Assessment Project) website describes that leaders in the field of campus sustainability have adopted serious strategies for systematically addressing the sustainability of the institution, later introducing the term campus-wide comprehensive sustainability management system. These institutions have policies stating their commitment to sustainability goals, specific plans in place that explain how they intend to achieve them, and track if they are achieving them.

The case study on LACCD’s move toward Smart and Sustainable Campuses explains there is a need for a Master Strategic Plan for infrastructure that includes
energy, transportation, water, waste and telecommunications along with the traditional dimensions of research, curricula, outreach and assessments. This provides a list of areas within the college that need to be incorporated into a comprehensive system or plan. AASHE’s STARS framework and credit structure is a useful resource in considering the extent to which sustainability plans can be developed. This process will not happen overnight and it’s important to note the process of creating this kind of comprehensive plan or system will take a lot of time, planning and effort and must be built upon over time.

To guide this process of creating a comprehensive sustainability management system, a committee with diverse representation is needed to ensure multiple views are included in the decision-making process. To ensure longevity and sustainability of this management system, long-term thinking in the formalization of roles and responsibilities would provide a clear definition of mission, goals and procedures for the committee. Responsibilities for a committee directing a comprehensive sustainability management system need to be broad as well, including prioritization and strategic planning, coordination of planning initiatives, projects, networking; monitoring of the program’s progress in achieving its goals; and delegation of responsibilities.

Adopting a campus sustainability assessment framework would be a natural place to start in facilitating the development of a comprehensive system to address sustainability more holistically, lending structure, organization, accountability, and recognition to GHC and its sustainability efforts.

3. Encourage accountability by delegating responsibility for reporting to individual departments, while also increasing transparency in energy costs. Facilitating a friendly competition between departments or buildings would also encourage accountability and energy-saving strategies.

By delegating responsibility for reporting to individual departments, each department would have to make a conscious effort to consider what actions it is taking in regards to sustainability. Ideally this would motivate departments to devise additional sustainability efforts.

Costs of consumption being virtually invisible is one of the common obstacles to campus sustainability. A strategy to make the costs of consumption more visible might encourage responsibility over energy-use and the employment of resource-saving strategies. Data being collected for the benchmarking process conducted by Kevin Howerton with Grays Harbor PUD could possibly be used for this purpose. A friendly competition between departments or occupants of different buildings could facilitate and encourage increased accountability and use of energy-saving actions.
4. Create a college culture of sustainability through educating and informing staff and faculty of sustainability concepts and practices and encouraging faculty to promote them to their classes.

Implementing recommendations in this report will lend support to creating this culture of sustainability and will be strengthened as sustainability efforts increase. Celebration and recognition of each year’s sustainability achievements is important in creating this culture. Friendly campus-wide competitions on energy-use would also create hype. Repetition was a reoccurring theme in campus sustainability discussions. Imagine if every week, each professor took 2-5 minutes of their classroom time to review and discuss the tip of the week. Making sustainability and sustainable practices a common topic of discussion is a powerful way to encourage sustainable practices and create a college culture of sustainability. This would counter lack of knowledge and awareness about sustainable concepts, another one of the common obstacles to campus sustainability.

5. Develop an experiential, applied educational model that catalyzes creative learning and involvement with the community by developing a robust service-learning program that instructs faculty on service-learning methodologies, builds community partnerships, and engages students in meaningful hands-on learning.

Many of the resources discussed in this report reference the importance of incorporating sustainability into the education and curriculum of the institution. For example, the STARS framework first section considers the level to which an institution has incorporated sustainability into education and research, where as the LACCD case study about sustainable smart campuses highlights the need for a vibrant, experiential applied educational model that catalyzes creative learning. Initiating a service-learning program would naturally facilitate the incorporation of sustainable concepts into GHC’s educational model, encourage engagement with the community and provide experiential, hands-on learning opportunities for students.

Meaningful engagement with the broader community was a recurrent theme throughout brainstorming sessions with GHC staff. Several groups proposed the incorporation of service, collaboration, and engagement with the community, all of
which service-learning methodologies involve. Well designed and implemented service-learning programs encompass articulation and promotion of interaction with community needs, creation of partnerships within the community, and the opportunity for students to utilize and showcase their talents. Articulation of issues facing the community and productive ways to address them is another useful aspect of well-implemented service-learning methodologies.

Mobilizing human capital during a time of budgetary restrictions is another major benefit of establishing a service-learning program. Students possess a wealth of creativity, knowledge, and talent that can be mobilized to further sustainability efforts at GHC. Students gain valuable experience and skills that also support the social aspect of sustainability by preparing students with real-life skills they can take to the workforce.

6. Prepare well-informed, environmentally conscious citizens for success through an environmental curriculum requirement.

Initially proposed during an informal conversation with Natural Resources Forestry Professor Todd Bates, discussion concerning the environmental challenges facing our world on a global scale and the unintended ignorance of the general populace concerning these issues led to more discussion about role of educators and institutions of education, with the idea that every student that receives a higher education degree should be required to take a course that addresses human-environment interactions and the complex relationships between social, economic and ecological spheres of life. This led to discussion about the types of courses that could fulfill this type of requirement, noting that his Society and Natural Resources course would serve the purpose, while other social science courses could also be modified to incorporate an environmental focus.
To implement this requirement is more of a long-term recommendation, as the institutional process and funding to require a course would be an institution-wide change that would require significant changes across departments and disciplines. However implementing an environmental curriculum requirement would be a strong signal of commitment to sustainability through encouraging students to live more environmentally- and socially- conscious lives. A class of this sort would help students understand the significance and urgency of sustainable development and counter lack of knowledge and awareness about sustainable concepts, addressing two of the common obstacles to campus sustainability.

7. Increase visibility of GHC’s sustainability efforts by building an online presence demonstrating GHC’s commitment and action to sustainability through reporting on individual departments’ efforts, facilitating information-sharing and communication, and providing resources.

GHC could directly address the common obstacle regarding access and availability of information and resources by building an online system to facilitate communication and information sharing about sustainability and GHC’s efforts in this arena. The wave of “Web 2.0” services and applications are characterized as facilitating communication, information sharing, interoperability, and collaboration and include social-networking sites, blogs, video and picture-sharing sites, wikis, etc (“Web 2.0”). Many of these tools can be used at little or no cost, providing an affordable route for GHC to develop an online presence.

We recommend that GHC creates an online system for easy access to sustainability resources, information about current campus efforts, and how individuals can get involved. It was noted during campus sustainability conversations that the college is not utilizing data gathered by GHC staff, conveying a message that the current system for information-sharing is inadequate. Looking ahead, GHC could develop and expand the website to include:

- Annotated lists and summaries of sustainability concepts and resources
- Information on what GHC is doing in regards to sustainability
- A forum for discussion and ideas

Creating this system could be a collaborative effort between staff and students. As part of service-learning courses, students could be required to identify, summarize and evaluate sustainability resources to be included on the website. Content could also be created to summarize and provide information on sustainability issues and concepts such as: building and land development, transportation, water use, energy use, environmental protection and restoration, facility operations, waste management, indoor environmental quality, etc.
If information concerning ongoing sustainability efforts at GHC was being collected as part of the campus sustainability management system, it would be easy to post this information on the website. This simple extra step would provide easy access to information; contribute to the celebration and recognition of sustainability efforts, and indicate GHC’s commitment to sustainability.

Fostering discussion and sharing of ideas has become more common through online social networking sites and blogging. Utilizing these free resources would be an inexpensive way to facilitate these discussions and information sharing. A possible work study position could be created to coordinate and monitor content and facilitate further inquiry. To enhance participation and use of this forum, teachers could encourage or require participation. In an information age, this would also promote a familiarity of online communication techniques that will prepare students for life after college.

8. Build on existing Earth Day activities to create a vibrant annual sustainability campaign that celebrates that year’s progress, promotes sustainable practices, and involves the college and community in planning for the following year.

A critical component to a successful campus sustainability program is the recognition and celebration of efforts and achievements. For the past two years, GHC has celebrated Earth Day by holding a fair with activities educating about and promoting sustainable concepts and practices, such as recycling; finding your carbon footprint, a clothing exchange; making your own recycled paper; planting your own veggies, making your own environmentally friendly soap, and worm composting. 2009 was the first year where the fair was coupled with a volunteer work day to maintain and improve GHC trails.

We recommend this Earth day is continued and built upon to not only promote and educate about sustainable concepts, but also celebrate GHC’s progress towards sustainability and involves the college and community in planning for directions and plans for the following year. Instead of just celebrating Earth Day, we suggest that a whole week be dedicated to
celebration of our environment and sustainability. Some ideas for additional activities that could take place during the week-long sustainability campaign include: a sustainability award ceremony, brainstorming and strategic planning discussions, a sustainability fundraiser, volunteer activities, keynote speaker, and community events. These are only a few ideas. This sustainability campaign has the potential to reach the whole community and demonstrate that GHC is taking a leading role in sustainability and community. To carry out the duties and responsibility of planning and coordination, student time and talents could be utilized through service-learning requirements and activities.

A Call for Innovation

Facing such challenging economic times, innovative approaches will be necessary to implement these recommendations. Where possible, we have provided ideas of affordable or inexpensive ways to carry out these recommendations, where GHC can build upon efforts already underway, and/or use efforts to serve multiple functions. The following strategies more clearly outline specific ways to mobilize manpower and support in pursuit of campus sustainability.

1. Draw on committee and volunteer support.

2. Distribute and delegate responsibility to individual departments.

3. Develop innovative service-learning programs and/or work-study positions that utilize and engage students, while also providing valuable experience and skills.
• Research into campus sustainability frameworks could be incorporated into a service-learning component of an on-campus course.

• Grant prospecting for funding sources related to sustainability, green jobs, and service-learning.

• With growing importance of web technology and networking tools, several types of service-learning work could be centered on design, content development, and monitoring of an online presence about GHC’s sustainability efforts.

• To carry out the duties and responsibility of planning and coordination of an annual sustainability campaign.

4. Seeking additional funding and support through organizations supporting sustainable initiatives and service-oriented learning methodologies.

• With the growth of the green economy and job sector, diverse funding sources to grow and implement a wide-variety of sustainable and green practices are available.

Knowing the importance of sustainability, we must not let our challenging economic circumstances stop us, but rather view this as great an opportunity to rethink and transform the way we approach sustainability and education. This outlook will serve to encourage creativity and innovation in moving towards campus sustainability.
Works Cited


(2007). American College & University President's Climate Commitment Implementation Guide. ACUPCC.


Appendices:

Appendix A: Relevant GHC Campus Contacts
Appendix B: GHC Fuel Consumption Reduction Strategies
Appendix C: Sierra Club Institutional Sustainability Audit
Appendix D: Alignment with GHC’s Strategic Direction and Goals

Appendix A:

Relevant Campus Contacts

Coastal Resources Learning Center (360) 538-4179
Sustainable Forestry (360) 538-2517
John M. Smith Aquaculture Facility (360) 538-4183
Custodial Services (360) 538-4020
Food Services (360) 538-4105
Grounds Maintenance (360) 538-4117
Purchasing (360) 538-4037
Appendix B:

GHC Fuel Consumption Reduction Strategies

A committee was formed to look at possible fuel saving strategies for the college. Even though the committee’s task was to deal with the ways the college could reduce the amount of fuel used, many of these apply to everyone’s daily driving. These are the strategies that the committee came up with.

Fuel Consumption Reduction Strategies:

- Practice smooth driving habits. Speeding, rapid acceleration, and braking wastes gas. It can lower gas mileage by 33% at highway speeds and 5% around town.
- While each vehicle reaches its optimal fuel economy at a different speed (or range of speeds), gas mileage usually decreases rapidly at speeds above 60mph. Assuming that for each 5 mph over 60 mph is like paying an additional $0.26 per gallon of gas.
- Avoid keeping unnecessary items in the vehicle, especially heavier ones. An extra 100 lbs in the vehicle could reduce the MPG by up to 2%. The reduction is based on the percentage of extra weight relative to the vehicle’s weight and affects smaller vehicles more than larger ones.
- Idling gets 0 MPG. Cars with larger engines typically waste more gas at idle than do cars with smaller engines.
- Keep the air conditional off during colder months.
- When employees/students are going to the same meeting/conference they should be encouraged to carpool.
- Use telephone conference calls and remote access software as much as possible.
- Encourage employees to use state/college vehicles instead of privately owned vehicles. Based on current rates, its cheaper to use a state vehicle.
- Combine off campus site trips with other departments (IT, grounds, and maintenance).
- The athletic department will look at a variety of ideas to reduce fuel consumption.

This information will be incorporated in the vehicle safety training offered by the college and placed in the van books.

The committee also looked into the possibility of purchasing and/or leasing a hybrid vehicle from the state motor pool. However due to budget reduction this recommendation has been put on hold.
Appendix C:

Sierra Club Institutional Sustainability Audit

Institutional Sustainability Audit

Paper

goal: Minimize use, encourage recycling and minimize disposal.

- Paper recycling containers at each desk
- Central receptacles at copiers and printers
- Regular practice of printing on both sides of paper
- Use recycled-content paper-towels and toilet paper
- Avoid printing documents when an electronic copy is sufficient

Energy

goal: Reduce energy consumption, procure from renewable sources, and undertake initiatives to reduce the harmful effects of energy production.

- Use of energy efficient appliances and equipment (copiers, lighting, dishwashers, etc.)
- Use timers for appliances and equipment
- Energy awareness program for educating staff
- Easy stair access, discouraging elevator use when appropriate
- Discourage staff working from working over-time (saves energy)
- Sensor activated escalators
- Purchase renewable energy
- Offer HVAC alternatives: open windows/doors for cross ventilation, blinds/curtains/awnings, turn-off appliances when not in use
- Use natural light as appropriate

Water

goal: Minimize water use and recycle and pre-treat before disposal where possible.

- Use of low-flow sinks and use of dual flush toilets or other low-water models
- Water-wise landscaping and use of native species
- Use of non-phosphorous soaps
- Use of grey water (from sinks and rain) for landscape, toilets and other appropriate applications
- Hire plumbers that understand water conservation
- Water HVAC system operating at optimal temperature level (for dry climates)
Waste

**goal:** Focus on avoiding and minimizing waste; and reusing and recycling before final treatment and disposal.

- Recycling of cardboard, aluminum, glass, plastics, and beverage cartons
- Return toner cartridges to manufacturer
- Recycle/compost organic waste
- Donate or recycle office furniture, computers, computer disks, telephones and other items
- Offer reusable plates, utensils, mugs and glasses in break rooms

Purchasing

**goal:** Environmentally, socially and economically sustainable purchase of goods and services.

- Lifecycle impact assessment for purchased goods
- Recycled content products receive preference to virgin material products
- Recycled content (80% of higher) in copy paper, letterhead and envelopes
- Support local suppliers
- Consider transportation costs from manufacture to destination when selecting suppliers
- Purchase in bulk to reduce packaging and delivery vehicle emissions
- Develop a list of preferred environmentally friendly products
- Regular maintenance and inspection of equipment to maximize life
- Use of environmentally friendly cleaning agents
- Low VOC carpeting, paints, etc.
- Rent equipment that is used infrequently

Travel

**goal:** Encourage utilization of alternative transportation and mitigate negative impacts of transportation use.

- Minimize car fleet while employing fuel-efficient or low-emission vehicles
- Encourage employees to use public transit/walking/cycling
- Offer telecommuting and the option of working at home where appropriate
- Support public transit pass programs
- Easy access to bus/train time-tables or other transit information
- Provision of facilities for bicyclists: racks, lock-up areas, showers and changing room
- Organize a carpool program
- Purchase CO2 emission offsets for air travel
- Use e-mail, telephone and video conferencing as alternatives to travel
Staff

goal: Increase staff understanding and awareness of environmental and social issues, and increase their ability to sustain productive effort.

- Promote environmental understanding via meetings, surveys, information postings
- Established method (message board, meetings, e-mail) for disseminating information on recycling
- Create a position for a Workplace Sustainability Coordinator to focus on the company’s products, staff and community
- Impact Flex-time and/or job-share are offered
- Task sharing and diversification of duties
- Common rooms and non-work space
- Wellness or stress reduction programs
- Ergonomic workspace (also plants and artwork)
- Teambuilding and social activities

Why Perform a Sustainability Audit?

Environmental Benefits
- Improved environmental performance and responsibility
- Reduce greenhouse gas emissions and global warming
- Improve air quality
- Reduce waste sent to landfill
- Reduce air and water pollution
- Reduce resource consumption

Social Benefits
- Improve employee health (physical and psychological)
- Improve personal responsibility and workplace health
- Expansion of sustainable practices to personal life
- Increase employee productivity and efficiency
- Improve indoor air quality

Economic Benefits
- Reduce water, energy, disposal and materials purchasing costs
- Possible grant funding for sustainability program
- Support local business through purchasing locally
Support of sustainable businesses – renewable energy, organic agriculture, sustainable products
• Creation of sustainable research and new sustainable industries
• New employment opportunities

Economic Costs
• Higher prices for some sustainable products and services
• Cost of end-of-use facilities (disposal)
• Loss of non-sustainable industries/jobs

Upon conducting an audit – you know where you stand.

Now what?
1. Develop practical solutions to reduce waste output
2. Involve staff in the development and completion of initiatives
3. Develop mandatory eco-efficiency policies and procedures and implement them
4. Develop an awareness/education program for staff
5. Introduce reporting and targets for cleaner production and eco-efficiency actions
6. Continue and expand the program

Sierra Club Sustainable Consumption Committee
January 1, 2005
Adapted from Susan E. Waller’s – “Walk the Walk” for the Australian Department of Premier & Cabinet.

Alignment with GHC’s Strategic Direction and Goals

Working toward sustainability is well aligned with GHC’s vision, mission, values and desired student abilities and pursuing our recommendations will also support the college’s strategic direction several of the specific goals. This list provides those strategic direction goals that are most directly related to implementing campus sustainability.

Vision Statement
Grays Harbor College is committed to being the premier choice for excellence in education, training, and services, responsive to the diverse needs of our communities.

Mission Statement
Grays Harbor College is a student-centered institution that inspires academic achievement, prepares an excellent workforce, and fosters personal growth by providing outstanding educational and cultural opportunities for improving lives in a global community.

Values
- Accessibility
- Community
- Diversity
- Excellence
- Integrity
- Learning
- Respect
- Success
- Leadership

Desired Student Abilities
- Competency in the disciplines
- Literacy
- Critical thinking
- Social and personal responsibility
- Information use

Strategic Direction 1: Instruction

Goal 1.5: Support innovation and excellence in programming in alignment with the Desired Student Abilities
Strategic Direction 2: College Climate and Staffing

Goal 2.5: Enhance appreciation for the richness of diversity through hiring, student outreach, professional development opportunities, and workshops.

Strategic Direction 3: Communications and Outreach

Goal 3.2: Continue to foster opportunities for cultural growth and awareness among students, staff and the community.

Goal 3.3: Develop systems to build and strengthen communication and partnerships with the larger community including nonprofit organizations, labor, industry, government agencies, colleges and universities, and community and service groups.

Goal 3.4: Assess and improve communication systems for engaging staff, students, and community, contributing to the promotion of a positive image of GHC.

Strategic Direction 4: Resource and Budget

Goal 4.1: Create an environment that ensures participation and communication regarding the budget process.

Goal 4.2: Explore, identify and implement options for alternative resources to support the college and its mission.

Strategic Direction 5: Student Services

Goal 5.3: Provide more opportunities to enhance student learning experiences and social development through student activities outside of the classroom.

Strategic Direction 6: Technology/Equipment/ Facilities