

SUSTAINABILITY Commission

Annual Report 2013

ESU



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1. INTRODUCTION

1.1 PRESIDENT’S COMMISSION ON SUSTAINABILITY

2008

At the behest of President Dillman and Provost Borland, the President’s Commission on Sustainability was formed and met for the first time in April 2008. A letter from Provost Borland suggested that the Sustainability Commission focus on three areas: 1. Education – by bringing “all members to a similar understanding of the issues relative to sustainability”, 2. Developing a sustainability strategic plan, and 3. Developing implementation strategies.

During the past academic year, the Sustainability Commission has undertaken several activities to promote sustainability and to increase the amount of sustainable practices on campus. Much of the work has been done by the five subcommittees (Mission Statement, Green Outreach, Carbon Footprint, Recycling, and Transportation) established in the fall 2009 semester. These subcommittees, which are chaired by members of the Sustainability Commission, have met separately throughout the year. Summaries of the subcommittee activities are included in the following section.

2012

During the Fall of 2012, Sustainability Commission welcomed East Stroudsburg University’s new President, Dr. Marcia Welsh.

1.2 CONTEXT OF MODERN SUSTAINABILITY

1.21 Defining modern Sustainability. The term, “sustainability,” is derived from the verb “sustain,” which means “to give support to”, to “supply with something that keeps someone or something alive (sustenance)”, or to “keep up” or “prolong” (Merriam-Webster Dictionary, 2013). In recent decades, the term has assumed a connotation that has implications beyond its strict dictionary definition and, more specifically, implies a way of responsibly managing the continuous developing activities of human societies with regards to the earthen environment. The US Environmental Protection Agency defines sustainability as a system that creates and maintains the conditions under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic and other requirements of present and future generations (US Environmental Protection Agency, 2013). A variety of publications, institutions, and activist groups each define the concept of modern sustainability differently, and, at the present, the connotation of modern sustainability remains open to interpretation. However, useful definitions for the sake of this report may have been offered by the United Nations. In a 1987 report, the United Nations remarked that sustainable development is “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (NGO Committee on Education), and more recently, at the World Summit of 2005, the same assembly suggested that sustainability is the balance between the “three pillars of sustainability:” environmental, social, and economic factors, in order to achieve sustainable development (United Nations General

Assembly, 2005). In the same vein, the United Nations Educational, Scientific, and Cultural Organization (UNESCO, 2010) describes sustainable development as requiring simultaneous and balanced progress in four dimensions that are totally interdependent: social, economic, ecological, and political.

The concepts of the “three pillars of sustainability” and “sustainable development” are illustrated in the figures below.

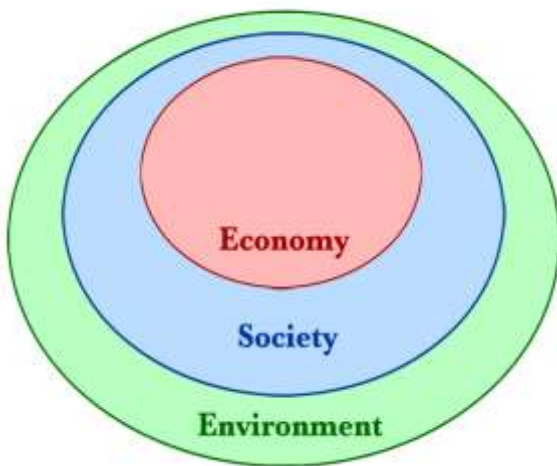


Figure 1: A Venn diagram showing the constraints of economy by human society and the earthen environment (Iacchus, 2009).



Figure 2: A Venn diagram showing the same constraints of Figure 1 as reinforcing factors (Forestry Commission of Great Britain, 2010).

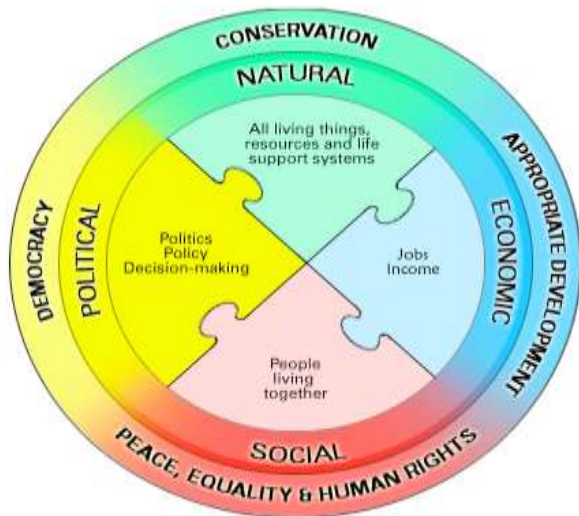


Figure 3: The four interdependent dimensions of sustainable development (UNESCO, 2010).

Figure 1 illustrates the realistic ecological constraints of human economy. Economy (or business, industry, development, progress, general human activity) can be considered to exist within the context of human societies. That is, without human societies, there can be no human economy. Furthermore, the existence of human societies is constrained by environmental factors (e.g. land, food, water, sun, atmosphere, resources, etc). Since human beings are biological organisms, it can also be said that, without a suitable environment in which to exist and with which to interact, there can be no human societies. The sum of environmental resources on the planet represents a carrying capacity for life on Earth.

At first, the three factors in Figure 1 may appear mutually exclusive. For example, a strict economist might argue that there is no merit in having an economy without having resources from which to draw, and he might argue that the environment exists to sustain (*sensu stricto*) the human economy. Contrastingly, a strict ecologist might view sustainable development as a paradox—that a growing human economy essentially implies the erosion of its necessary environment.

Figure 2 illustrates how the three factors may instead serve to reinforce rather than exclude one another. Whereas the polarized viewpoints in the two examples of the previous paragraph assume extreme perspectives, it may be said that a moderate practice of Sustainability incorporates a compromised balance between the three aforementioned “pillars” of modern Sustainability.

1.22 Expanding human society. All biological organisms can be said to interact with the environment and impact it in some way, but this introduction will focus on human activity. In recent centuries, the world human population has increased sharply. The world population continues to grow and according to projections by the United Nations Population Division, even at a constant growth rate pattern, the world population will grow exponentially over the next century (Figure 4). The expansion of human society has been affected by the relatively recent expansion of human industry, including the developments of powerful machines, faster transportation means, efficient communication media, and advanced medical practices; yet, all of this expansive growth continues to exist within the limitations set by the physical environment. As with the kinetics of any physical system, the growth of human society requires energy input as some level. Modern technology is fueled by methods realized during the Western Industrial Revolution, during which human beings realized and harnessed the power of vast reserves of potential energy contained in fossil fuels and raw materials harvested from the environment (see Figure 5).

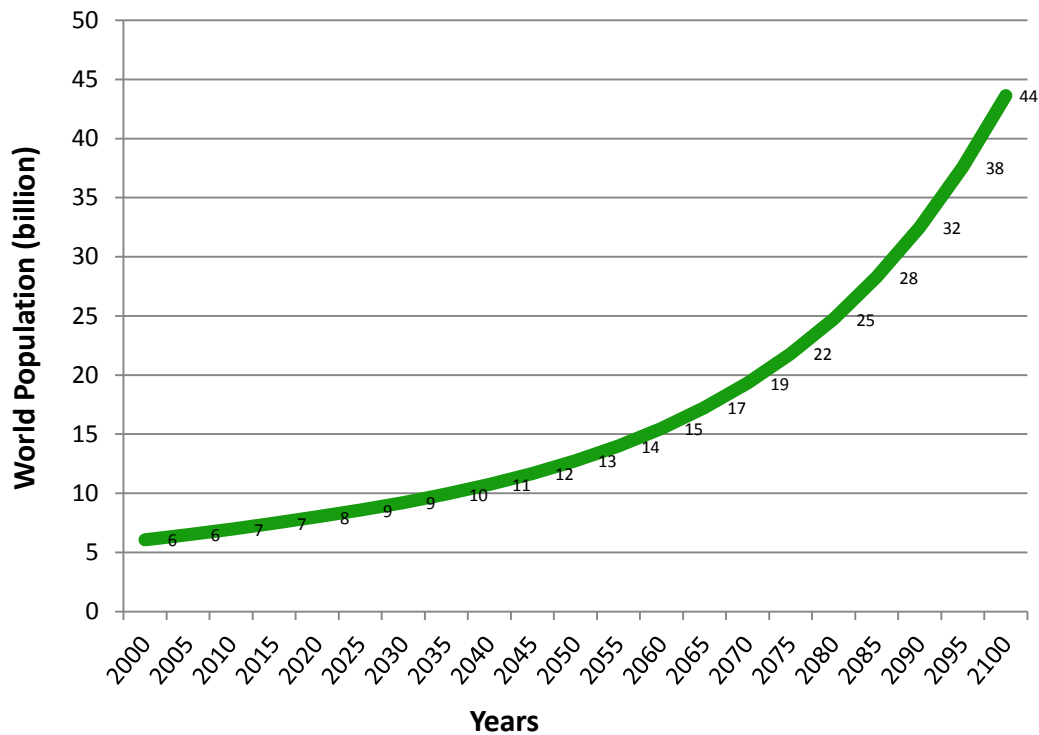


Figure 4: Projected growth of world human population from year 2000 to 2100 (United Nations Population Division, 2003).

1.23 Fossil fuels. Energy can come from a variety of forms. At a basal level, plants utilize energy from sunlight to manufacture carbon-based biomass by fixing carbon from the atmosphere. The anaerobic decomposition of carbon-based biomass over hundreds of millions of years produces fossil fuels. Fossil fuels contain varying amounts of potential energy in their chemical bonds, most of which involve the element, carbon. Volatile fossil fuels such as petroleum, coal, and natural gas contain high percentages of carbon, and the potential energy stored in the chemical bonds with carbon can be transferred into useable kinetic energy when the carbon is oxidized (burned), producing carbon dioxide and water as by-products.

While plants utilize sunlight as their primary energy source, human society utilizes fossil fuels at an estimated 86.4% of its primary energy source. This is evident in the fact that of the total amount of U.S. greenhouse gases emitted in 2011, about 86% were energy-related and 92% of those energy-related gases were carbon dioxide from the combustion of fossil fuels. The greatest contributor to these energy-related emissions is petroleum (43%), followed by coal (31%), and finally, natural gas (26%) (U.S. Energy Information Administration, 2013). Fossil fuel resources are considered non-renewable because of their

very long generation time. Other energy sources for the sustainment and growth of human society include hydroelectricity, nuclear power, and wind and solar power.

1.24 Supply of fossil fuels. The current paradigm of human societal development raises concern aimed at the de-fabrication of the underlying environment. Based on current trends, the energy expenditure by human society will potentially exceed the energy available. According to the U.S. Energy Information Administration (2012), the United States consumed a total of 6.87 billion barrels (18.83 million barrels per day) in 2011 and 7.0 billion barrels (19.18 million barrels per day) of refined petroleum products and biofuels in 2010. For both years, this was about 22% of total world petroleum consumption (see Figure 6). There is therefore, the concern of the reserve-to-production/consumption ratio. Statistics show that fossil fuel reserves are declining by the year (See Figure 5). Even though there is the hope that more reserves will be discovered, the size of newly discovered reserves are not as much as have already been found (Ecotricity Group Limited, 2013). Estimates like these are difficult to make with high accuracy, but it is generally agreed that the amount of fossil fuels available is fixed and that the rate at which human society uses fossil fuels is substantial. Fossil fuels, specifically, coal, petroleum and natural gas, are by far, the largest category of energy sources utilized by humans, but unlike renewable or nuclear energy, they cannot be recycled, or reproduced (U.S. Energy Information Administration, 2012) . As Wackernagel and Galli put it, for several decades now, our demand for resources has exceeded what the planet can regenerate, and the margin grows as the years progress (United States' consumption of refined oil more than doubled over the past decade and a half; an increase from 3 billion barrels per year in 1995, to 7 billion barrels per year in 2011). Over the past few decades, global achievements in economic growth, poverty reduction and improved welfare have been counterbalanced by an increasing strain on the biosphere. Forests are cut faster than they can regrow. Fish are caught faster than they can restock. World per capita food and services consumption has grown during the last four decades. Global extraction of natural resources (e.g., biomass, fossil fuels, metal ores, and other minerals) has increased by nearly 45 per cent in the last twenty-five years. Many countries in arid and semi-arid regions (e.g., Central and West Asia, North Africa) are already close to or below the threshold for water scarcity of an annual one thousand cubic meters per person. Greenhouse gas emissions are accumulating in the atmosphere, causing climatic change and additional pressure on the health of ecosystems. The situation is unsustainable (Wackernagel & Galli, 2012).

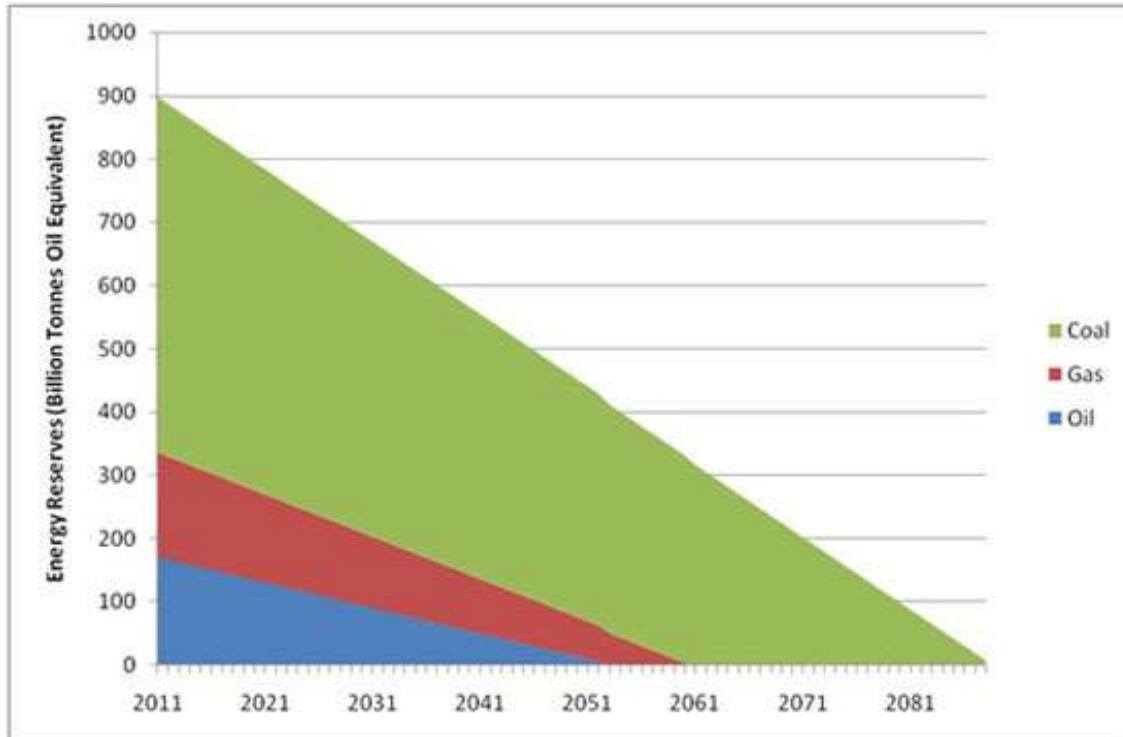
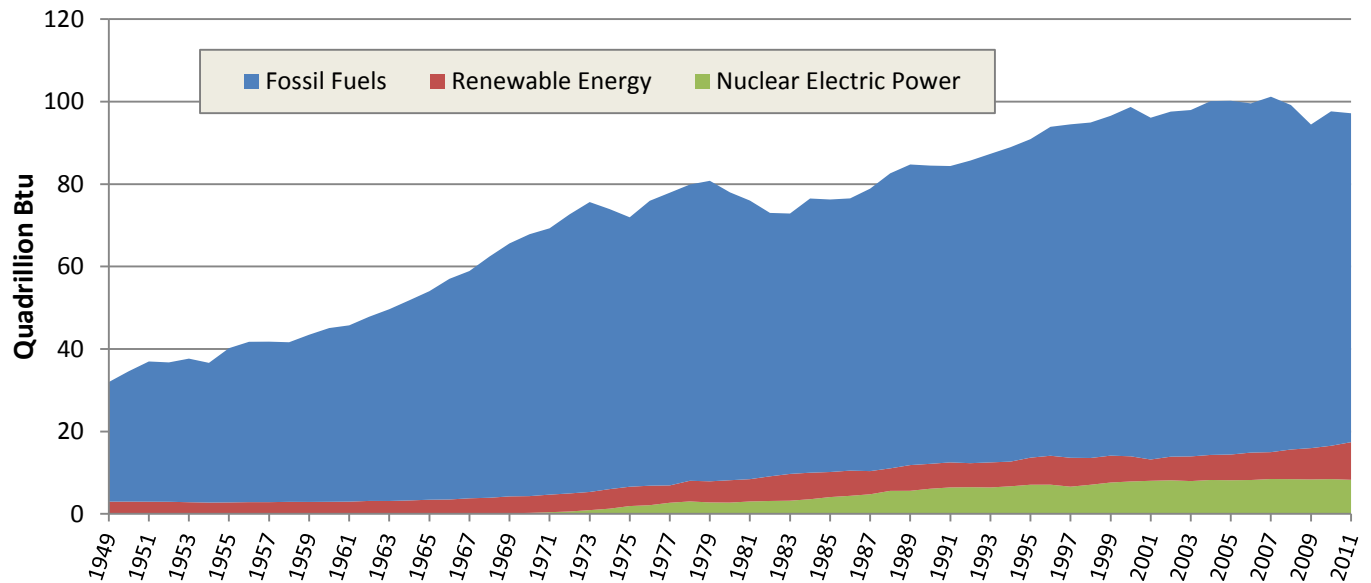


Figure 5: Projection of levels of fossil fuel reserves (Ecotricity Group Limited, 2013)

1.25 Atmospheric effects. Besides the depletion of reserves, the burning of fossil fuels also produces about 21.3 billion tons of carbon dioxide annually (US Dept of Energy). Carbon dioxide is a greenhouse gas, which can affect the ratio of incoming versus outgoing solar radiation through the atmosphere, thus affecting the Earth's climate, i.e., global warming. Only about half of the 21.3 billion tons can be absorbed by natural processes; each year, there is an estimated net increase of 10.6 billion tons of carbon dioxide in the Earth's atmosphere (U. S. EIA, 2004).



Source: U.S. Energy Information Administration Annual Energy Review.

Figure 6: U.S. Primary Energy Consumption Estimates by Major Source, 1949-2011

1.26 Land effects. Humans depend on land for the establishment of their home ranges, for the production of most of their food energy, and for raw materials for building and industry. The exponential human population growth coupled with industrial growth has translated into more demands being put on available land. In 2008, it was estimated that 2.7 “global hectares” were required to sustain the average person. When using the world population and the total earthen landmass as factors, only an estimated 2.1 global hectares per person were found available (World Wide Fund International, 2008). Expansive human development has also affected the degradation of half of the world’s forests and over half of the world’s wetlands; wetlands are valuable for their water-purifying action and are widely regarded as the most biologically diverse of all ecosystems. Furthermore, habitat destruction is currently listed as the number-one cause for organisms being added to the Endangered Species list, and the Earth is currently losing about 27,000 species per year to habitat loss—significantly higher than a normal extinction rate of 10-100 species per year (PBS, 2001).

1.27 Rationale for sustainability efforts. The modern trend of human development is often viewed as ecologically unsustainable because the expanding society, at its present rate, will potentially create a resource deficit between itself and its environment—a deficit which is greater than the amount of resources that can be regenerated through natural processes. That is, the environment will no longer be able to sustain an expanding human society after human society has reached a certain carrying capacity.

A sustainable society is one which does not threaten its carrying capacity, and modern sustainability efforts are aimed at dealing with this dilemma.

One of the main focuses of sustainability efforts is the management of human business—taking into account the cumulative amounts of energy and raw materials consumed versus the refined materials and waste produced. This is a call for individuals and inherent organizations thereof to become more responsible and to consider the reality of ecological economics. The environment, often viewed as an externality of human society, is really an intrinsic part of it.

1.28 Scale of sustainability. The concept of Sustainability as well as the impact that the environment and human beings have on each other can be viewed on a gradient scale and in a variety of contexts. On a grand scale, these would include the impacts that the human species as a whole has on the Earth as a whole; while on a small scale, these would include the impacts that a single person has on his living space. Human communities, businesses, institutions, and nations all have an impact, albeit somewhere in between the two extreme examples mentioned previously.

1.29 Sustainability methods. Ways that a person or a group of people can have measureable impacts on the reductions of energy and raw materials consumed and waste produced are:

- to reduce the quantity of materials and fuels he or she takes from the environment,
- to reuse products so that more do not need to be manufactured,
- and to recycle products, preparing the waste for use as a future raw material.

1.3 EAST STROUDSBURG UNIVERSITY PROFILE

1.31 The University: Located in the foothills of the Pocono Mountains, East Stroudsburg University is one of the 14 institutions in the Pennsylvania State System of Higher Education. Founded in 1893 as a normal school to prepare teachers, the institution changed its name in 1927 to East Stroudsburg State Teachers College and again in 1960 to East Stroudsburg College, reflecting the addition of liberal arts and science curricula. In 1983, it achieved university status.

1.32 Academic Schools and Colleges: The University is comprised of 4 colleges: Arts and Sciences, Business and Management, Education, and Health Sciences.

1.33 Academic Programs and Degrees Conferred: East Stroudsburg University of Pennsylvania is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools as well as a variety of discipline-specific accrediting agencies. Academic offerings include 57 bachelor's degrees and 22 master's degrees. During the 2010-11 academic year, the University awarded 1,136 bachelor's degrees and 352 master's degrees.

1.34 Faculty and Staff: In Fall 2011, there were 686 full-time employees and 157 part-time employees at East Stroudsburg University. Of these, 298 were full-time faculty and 59 were part-time faculty. Almost eighty-nine percent (88.6%) of the full-time faculty was tenured or tenure-track and 81.9% hold the doctorate or other terminal degree.

1.35 Enrollment: Fall 2012 enrollment totaled 6,943, which included 6,355 undergraduates and 588 graduate students. 90.3% of undergraduates and 50.8% of graduates were enrolled on a full-time basis. The undergraduate student body was 45.4% male and 23.6% minority.

1.36 Admissions/Retention: 77.3% of all undergraduate applicants were accepted, and 1,275 first-time freshmen enrolled for Fall 2012. The average total SAT score for entering freshmen was 970. On average, 70.4% of first-time full-time freshmen return for their sophomore year. 88.1% of all undergraduate transfer applicants were accepted and 597 enrolled for Fall 2012.

1.37 Costs: Academic year 2012 tuition and fees were \$6,428 for resident undergraduates and \$16,070 for nonresident undergraduates. Total 2012-2013 cost of attendance for resident undergraduates was \$16,180. This amount included tuition and mandatory fees, and room and board charges.

1.38 Physical Facilities. The University occupies and maintains 66 buildings located on approximately 252 acres in the East Stroudsburg Borough and in Smithfield Township. Forty six acres of the property in Smithfield Township are leased to University Properties Inc., which has constructed 541 beds of student housing in six buildings on 43 acres, and to the Visiting Nurses Association, which has constructed a six-bed Hospice House on three acres. The 66 buildings in East Stroudsburg borough include academic facilities, eight residence halls (housing 2,400 students), a 1,000-seat dining hall, a Student Center, and a Recreation Center. The Student Activity Association, Inc. owns Stony Acres, a 119-acre off-campus student recreation center/wildlife sanctuary near Marshalls Creek, that includes lodge cabins, challenge course, hiking trails and a small pond.

1.4 EAST STROUDSBURG UNIVERSITY OF PENNSYLVANIA STRATEGIC PLAN 2010 - 2015

1.41 Vision statement. East Stroudsburg University of Pennsylvania will be first choice for students seeking a comprehensive university with a small college climate, distinguished by innovation and tradition, where they will learn to serve, lead and succeed in a global society.

1.42 Mission statement. East Stroudsburg University of Pennsylvania will provide:

- challenging and contemporary undergraduate and graduate curricula that engage and equip students to critically appraise and apply knowledge in their lives and chosen fields of study;
- a learning community that promotes diversity and views teaching as the university's primary focus;

- varied opportunities for student and faculty research, creative endeavors and involvement in public service; and
- leadership and service in the educational, cultural and economic development of the region.

1.43 Values Statement. We are committed to the principles of intellectual integrity, freedom of expression, the fair and equal treatment of all, good citizenship, *environmental stewardship*, and accountability for our actions *and the resources entrusted to us*. [Emphasis added for this report]

2. MISSION STATEMENT OF THE SUSTAINABILITY COMMISSION

“East Stroudsburg University commits itself to environmental sustainability in its overall philosophy and day-to-day practices. This commitment involves collaborative efforts among our students and employees, and our greater Northeastern Pennsylvania community. We strive to inspire our constituents towards achieving climate neutrality through education, exposure to green values and attitudes, and, most of all, conscientious action. “

Historical note: A subcommittee of the sustainability commission produced this mission statement in 2008-2009. Volunteer members of the committee were drawn from a campus-wide invitation sent that year. The committee was led by Jeff Hardy.

3. SUSTAINABILITY COMMISSION REPORT

3.1. RATIONALE FOR THE REPORT

As Sustainability becomes an increasingly focal topic among institutions, it is important for East Stroudsburg University to demonstrate its commitment to conserving global energy reserves and minimizing waste output in order to meet the needs of the present without compromising the potential success of future generations.

A successful effort towards Sustainability is not only a civil responsibility of the modern age, but such an effort will also increase positive relationships between the university and its stakeholders, such as: present and potential students, the local public and businesses, the State of Pennsylvania, and ESU alumni. Sustainable practices will also allow the university to remain competitive as similar institutions adopt similar practices.

An annual report by the Sustainability Commission is necessary to document the endeavors that East Stroudsburg University is making towards sustainability. This report will be to depict the collaborative efforts of the five subcommittees of the President’s Commission for Sustainability.

It is hoped that the process of documenting our progress and goals that our campus can better focus our efforts and most effectively achieve a more sustainable campus.

Though much of the work done by the sustainability commission falls under one of the four sub-committee headings, some items are best addressed separately. These are listed below.

3.2. QUICK SUMMARY

Goal	Initiative	2013 Actions	2014 Goals
Improve Collaboration with Northeastern PA	Greenway Ambassador Project	Launch of the program	Obtain more community support
	Collaborate with other businesses such as the hospital	none	Establish a collaboration
Annual Report	Generate and publish to our website our sustainability annual report	Annual Report prepared	Update report with current information
Improve our sustainability efforts	Obtain a scoring/rating of the institution’s sustainability efforts through AASHE STARS	Preliminary Survey generated from AASHE STARS rating criteria.	Register with AASHE STARS for our institution’s official scoring of our sustainability efforts
	Participation in the University of Indonesia-initiated Green Metric World University Ranking	Registered and submitted data for the 2013 ranking	Improve on sustainability efforts, based on the results of the Green Metric Ranking
Have a Sustainability Commission Representative on the University Senate	Discussions and deliberations underway	Nominate an individual	Approve and have someone on the senate
Student involvement			Widely extend invitation to students
Enact New Policies	Policies have been proposed	Proposed policies drafted	Push for policies to be enacted

3.3. MEMBERSHIP

Chair September 2012 – August 2014: Darlene Farris-LaBar

Chair September 2010 – August 2012 (Mark Stewart)

Chair September 2008 – August 2010 (Jeffrey Hardy)

(Fall 2012-2013)

Darlene Farris-LaBar

Mark Stewart

Jeffrey Hardy

Syed S. Zaidi

James Maroney

John Blosinski II

Eugenia A. Skirta

Eugene Galperin

James Hunt

Richard Staneski

Scott Heinrich

Britta Heiss

(Fall 2013-2014)

Darlene Farris-LaBar

Jeffrey Hardy

Syed S. Zaidi

James Maroney

John Blosinski II

Eugenia A. Skirta

Eugene Galperin

James Hunt

Ken Long

Scott Heinrich

Robert McKenzie

Paul Wilson

John Stabinger

Paul Lippert

Cheryl Gilboy

Madeline Constantine

Mildred Nunoo

Miles Gomez

Samantha M Grim

Nicholas D. Hunt

Melissa A. Hauss

Melissa S. VanDerpool

Raymond A. Macik

3.4. COLLABORATION WITHIN NORTHEASTERN PA COMMUNITY

This type of collaboration is true to our mission:

“This commitment involves collaborative efforts among our students and employees, and our greater Northeastern Pennsylvania community.” – ESU Sustainability Commission Mission Statement

Fall 2013 Greenway Ambassador Project

The Greenway Ambassador Program is a new public-private partnership boosting the local economy by promoting the unique natural charms of the Stroud Region, unifying the common goals of commerce, cultural organizations and recreational attractions. East Stroudsburg Savings Association (ESSA) is a

proud Greenway Ambassador.

Such a pride in both the place and how we sell our place to the world prompts residents and guest to share experiences, encourages visitors to stay and return, triggers invaluable word-of-mouth advertising, and ultimately produces a true sustainable economy.

Historian Wallace Stenger once said "Create a society to match our scenery." We have the place. We have the potential. Together, Greenway Ambassadors work to make businesses in the area more competitive; attractions, more compelling; and neighborhoods more livable. As the central unifying feature of our place, the Stroud Greenway is a scenic corridor centered on the Brodhead, McMichael and Pocono Creeks. Connecting dozens of public parks, walking and biking trails, and recreational and cultural facilities throughout urban districts, suburban neighborhoods and rural areas, the Greenway incorporates the diverse economic, environmental and social assets vital to enhancing the regional quality of life.

The Greenway Ambassadors Program officially launched on September 18, 2013. Becoming a Greenway Ambassador is easy and free. There are no membership fees or associated costs. Businesses, municipalities and cultural institutions simply choose to align themselves with the **Greenway Ambassadors** program. This is done by prominently displaying a distinctive decal or poster of the program. Greenway Ambassadors distribute Stroud Greenway information in their places of business, promoting walking and biking routes, recreational and cultural amenities, and other place-based business services and attractions. Such a profile-raising service helps attract and engage new customers and clients.

Collaborations from the Past

In the past, the ESU Sustainability Commission has collaborated with Sanofi Pasteur, a large employer in the region. The collaboration initiated by Sanofi, involved discussions on both parties can together help the region become more sustainable. ESU visited Sanofi's recycling efforts in an effort to share ideas on what more can be done in this area. Sanofi Pasteur regularly participates in ESU's Annual Earth Day Events.

3.5 EARTH DAY 2013: APRIL 26

Earth Day 2013 at East Stroudsburg University was not only a celebration of our home (Earth) but also an educational event with informative booths, speakers, and music. Students visited booths from various entities such as ESU's Sustainability Commission, ESU clubs/organizations, and several community groups.

East Stroudsburg University also invited the surrounding community schools and organizations to get involved. A group of Stroudsburg Middle School students participated in ESU's Earth Day.

Located in the center of campus, Earth Day 2013 was held on the ESU Quad in fantastic weather. In conjunction with Earth Day 2013, the Monroe County Municipal Waste Management Authority sponsored a free electronic recycling program that was open to the public at no cost.

President Welsh kicked off the event by delivering a welcome to the students, faculty, and surrounding community and also addressed the issue of "Making ESU a Greener Campus". Ray Milewski, Ph.D., an associate professor of Biological Sciences, gave a presentation called, "Saving Rare Plants" and Terry Master, Ph.D., a professor of Biological Sciences, presented "Species Reintroduction in the Delaware Water Gap National Recreation Area."

Additionally, ESU Earth Day 2013 had an array of activities for participants. These activities included:

- ✓ Lectures and demonstrations on a variety of sustainable topics
- ✓ Environmental trivia
- ✓ "Bring your own shirt" tie dying
- ✓ Live entertainment including performances by FM Waves, Ken Hatt, and Bedside Morale
- ✓ Participants had the ability to register a bike on campus with a free T-Shirt
- ✓ The Waste Authority raffled an Advanced Elements inflatable kayak paddler's pack

Also, as part of ESU's Earth Day celebration, Dr. Pat Kennedy, associate professor of Communication Studies, hosted the new film "Do the Math" in Monroe Hall. The film, which premiered only five days earlier on April 21, tells the story of the climate change movement, with an emphasis on what can be done by ordinary citizens taking extraordinary action.

The film features author and journalist Bill McKibben. McKibben, along with a few college students, founded the rapidly growing 350.org, an international movement aimed at reversing the destructive path of climate change by spreading the "numbers," identifying the "rogues" responsible, and offer concrete examples of action.

3.6 2013 – 2014 POLICY PROPOSALS

During spring 2013, the Sustainability Commission began discussing possible proposed policies that would provide credit towards the university's sustainability initiatives. Such examples can be found below:

- **Car Sharing:** *Criteria* - Institution participates in a car sharing program, such as such as a commercial car sharing program, one administered by the institution, or one administered by a regional organization.

- **Limiting Printing:** *Criteria* - Institution limits free printing for students, in all computer labs and libraries.
- **Materials Online:** *Criteria* - Institution's default is to not print course catalogs, course schedules, and directories, but instead make these materials available online.
- **Storm water Management:** *Credit Rationale* - This credit recognizes institutions that implement policies and programs to reduce storm water runoff and resultant water pollution. By decreasing storm water runoff and treating storm water on site, institutions can help replenish natural aquifers, reduce erosion impacts, and minimize local water contamination.
- **Strategic Plan:** *Credit Rationale* -This credit recognizes institutions that have made a formal, substantive commitment to sustainability by including it in their strategic plan. The strategic plan is the premier guiding document for an institution; it shapes the institution's priorities and guides budgeting and policy making. Including sustainability at a high level in the plan signals an institution's commitment to sustainability and may help infuse an ethic of environmental and social responsibility throughout the campus community.
- **Employee Training Opportunities:** *Criteria* - Institution makes cultural competence trainings and activities available to all employees.
- **Sustainable Investment Policy:** *Criteria* - Institution has a policy, practice, or directive to consider the social and/or environmental impacts of investment decisions, in addition to financial considerations.
- **Sustainability Policy Advocacy:** *Credit Rationale* - This credit recognizes institutions that have promoted sustainability through public policy advocacy. There are myriad public policies for which institutions can advocate that address sustainability, including policies specific to higher education. Given the prominence and importance of colleges and universities in their communities, institutions can be powerful voices in advancing sustainability through legislation and policy.
- **Interdisciplinary Research in Tenure and Promotion:** *Credit Rationale* - This credit recognizes institutions that acknowledge interdisciplinary, trans-disciplinary, and multidisciplinary research during faculty promotion and tenure decisions. Addressing sustainability challenges requires solutions and understandings that often cover multiple academic disciplines. Giving interdisciplinary research equal weight as research from a single academic discipline provides an important foundation that allows faculty to pursue sustainability related research.
- **Indoor Air Quality:** *Credit Rationale* - This credit recognizes institutions that are working to protect the human health of building occupants by monitoring and protecting indoor air quality. Institutions can promote productivity in the workplace and classroom by improving ventilation and managing exposure to indoor pollutants. This creates safe learning, living, and work environments and reduces illnesses for students and staff alike.
- **Trans-Fats:** *Criteria* - Institution uses frying oil that does not include trans-fats and seeks to avoid foods that include trans-fats in its dining operations. This credit includes on-campus dining services operated by the institution or the institution's primary dining services contractor (On-site franchises, convenience stores, vending machines, and concessions are excluded from this credit).

- **Native Plants:** *Criteria* - Institution prioritizes use of native plant species in landscaping.
- **Wildlife Habitat:** *Criteria* - Institution has programs in place to protect and/or create wildlife habitat on institution-owned land.
- **Snow and Ice Removal:** *Criteria* - Institution has implemented technologies or strategies to reduce the environmental impacts of snow and ice removal.
- **Landscape Waste Composting:** *Criteria* - Institution composts or mulches waste from grounds keeping, including grass trimmings.
- **Cleaning Products Purchasing:** *Credit Rationale* - This credit recognizes institutions that purchase green cleaning products. By switching to non-toxic cleaning products, institutions reduce exposure impacts for all building occupants and the environment, thereby promoting clean and healthy work, living, and learning spaces.
- **Computer Purchasing:** *Credit Rationale* - This credit recognizes institutions that are working to build a market for environmentally preferable computers.
- **Vendor Code of Conduct:** *Credit Rationale* - This credit recognizes institutions that have taken proactive steps to ensure that their vendors meet minimum standards of environmental and social responsibility.
- **Facilities for Bicyclists:** *Criteria* - Institution has indoor and secure bike storage, shower facilities, and lockers for bicycle commuters in at least one building. Storing bicycles in office space does not count for this credit.
- **Prohibiting Idling:** *Criteria* - Institution has adopted a policy prohibiting idling.
- **Physical Campus Plan:** *Credit Rationale* - This credit recognizes institutions that have made a formal commitment to developing and maintaining their physical campuses with sustainability in mind by including the principle at a high level in their campus master plan. An institution's master plan shapes the development and maintenance of its physical campus. Incorporating sustainability into the campus master plan may help an institution realize sustainability objectives when making decisions about its facilities.
 - *Criteria* - Institution's current plan for its physical campus (commonly referred to as the campus master plan) includes sustainability at a high level. An amendment to the plan may count for this credit, as long as the institution always presents the amendment with the original plan.
 - Neither a strategic plan (which is covered in *PAE Credit 2: Strategic Plan*) nor an independent sustainability plan (which is covered in *PAE Credit 4: Sustainability Plan*) counts for this credit.
 - Plans developed at the system level are eligible for this credit. Likewise, multiple plans which together cover the institution's entire physical campus are eligible for this credit.
- **Strategic Plan:** *Credit Rationale* - This credit recognizes institutions that have made a formal, substantive commitment to sustainability by including it in their strategic plan. The strategic plan is the premier guiding document for an institution; it shapes the institution's priorities and guides budgeting and policy making. Including sustainability at a high level in the plan signals an institution's commitment to sustainability and may help infuse an ethic of environmental and social responsibility throughout the campus community.

- *Criteria* - Institution's current, formally adopted strategic plan or equivalent guiding document includes sustainability at a high level. The plan covers the entire institution. An amendment to the strategic plan may count for this credit, as long as the institution always presents the amendment with the original plan.
- Neither a physical campus plan (which is covered in *PAE Credit 3: Physical Campus Plan*) nor an independent sustainability plan (which is covered in *PAE Credit 5: Sustainability Plan*) counts for this credit.
- **Building Design and Construction: Credit Rationale** - This credit recognizes institutions that have incorporated environmental features into their design and construction projects. Decisions made during the design phase, such as where to locate the building and how it is oriented, can yield significant energy savings and reduce impacts on the site. By designing and building for enhanced indoor environmental quality (IEQ), institutions can ensure their buildings provide safe, healthy, and productive spaces for the campus community.
 - **Criteria** - Institution-owned buildings that were constructed or underwent major renovations in the past three years are:
 - Certified under the LEED® for New Construction and Major Renovations, LEED for Commercial Interiors, and/or LEED for Core and Shell GreenBuilding Rating Systems, and/or
 - Designed and built in accordance with green building guidelines and policies that cover the following topics:
 - Impacts on the surrounding site
 - Energy consumption
 - Usage of environmentally preferable materials
 - Indoor environmental quality
 - Water consumption
 - This credit applies to Eligible Building Space (Design and Construction).

4. COMMITTEE REPORTS

4.1 GREEN OUTREACH COMMITTEE

4.1.0 Quick Summary

<u>Goal</u>	<u>Initiative</u>	<u>Progress</u>	<u>Goals for 2014</u>
Engage students in issues related to sustainability	Student Poster Sessions	Held in the Spring of 2012, and again on 2013.	Host another similar event with hope for more posters and a larger audience.
	Formation of Student Group; Students for Sustainability	The group stayed active for a while, but has phased out.	Re-form the group, or a different one
	Symposia	Five different presentations were made.	Hold more symposia and work towards an increased student involvement.
	Movie Screening	A movie Screening was held, followed by a discussion with a discussion panel	Find more sustainability-related movies for future discussions
Engage the community on the subject of sustainability	Maintain an informative sustainability website	The Commission has a website where information is posted from time to time.	Be more active and robust, with current and interesting information.

4.1.1 Members

Paul Lippert (Chair)
James Hunt (Past Chair)

Communication Studies Department
Biology Department

Caroline DiPipi-Hoy
Darlene Farris-LaBar
Mihye Jeong
Eugina Skirta
Cem Zeytinoglu
Jenny Collins
Patricia Kennedy
Eugene Galperin
David Mazure
Mildred Nunoo

Special Education and Rehabilitation Department
Art Department
Physical Education Teacher Education Department
Mathematics Department
Communications Studies Department
Music Department
Communication Studies Department
Mathematics Department
Art Department
Exercise Science Department

4.1.2 Objective

This committee looks at ways to ensure that there are educational aspects to our sustainability efforts. Academic sustainability initiatives should look at ways that will ensure there are educational aspects to our sustainability efforts. Increasing sustainability awareness throughout the curriculum will help

encourage environmental stewardship throughout the campus community and beyond. Opportunities and resources that will equip undergraduate and graduate education, academic research, co-curricular and service learning, and community outreach with success in supporting sustainability responsiveness are requested.

4.1.3 History

Both of these project objectives were successfully met during the 2010 school year. The second Sustainability Promotion and Development workshop was held in Beers Hall on April 16, 2010. The workshop included five speakers and a Student Poster Session. Several students and ESU faculty attended the event.

A student organization, Students for Sustainability was also formed. Cem Zeytinoglu (Professor, Communications) is the group's advisor. Many of the student presentations at the workshop were by members of the Students for Sustainability group. Students for Sustainability is a voluntary student group which aims to create a general awareness in and around the East Stroudsburg University campus about the significant sustainability problems, and works towards to instill necessary attitudes, especially within the student body, to attain a more sustainable campus. Students for Sustainability primarily plans to work on the following issues: alternative energy sources, reducing carbon footprint, zero waste, and ecological conservation. For the most part, after the 2010 Spring event, the group was inactive; the last action was with the curriculum committee during the last year's spring event.

4.1.4. Accomplishments.

Since 2012, the Green Outreach Committee has held several educational events, for the benefit of students and the campus community on the whole. The following are the topics of symposia that took place:

- ✓ Sustainability in Design, by Erika Doering
- ✓ White-nose Syndrome and the Decline of Pennsylvania's Bats, by Sandy Whidden
- ✓ Acid in the Oceans and Why You Should Care, By James Hunt
- ✓ Oil on our Shores: Offshore Drilling and Environmental Risks, by Sean Cornell
- ✓ Your Trash is My Treasure: saving the planet through fashion, by Lorena Roman Piccione

During the academic year, the Committee held a movie screening with moderated group panel discussion of the documentary: "The Vanishing of the Bees". The panel for the event included Darlene Farris-LaBar, Maria Kitchens-Kintz, and Matthew Wallace.

The Committee also held a 2012 Student Poster Session at the Science & Technology Center, coordinated by Eugenia Skirta and Eugene Galperin. This even was an opportunity for students to showcase their knowledge and research efforts on sustainability to the university. Another Student Poster Session was held in 2013, in addition to a Student Research Forum.

Apart from the main events of the year, there were holiday sustainability messages over the campus monitors, to educate the campus community on sustainability. These educational messages were put together by David Mazure.

4.1.5. Past initiatives.

The green outreach group has set a goal to organize a Monthly Speakers, a Green EXPO and a Baseline Survey that will access student knowledge and attitudes about a sustainable environment in the upcoming year.

A Green EXPO will provide booths from businesses and speakers that promote or utilize sustainable methods. This event will involve reaching out to the Community outside the university.

The Green Outreach Subcommittee will look into following up on a Baseline Survey in order to assess student knowledge and attitudes about a sustainable environment. The subcommittee is consulting an external, online source for organizing and administering the survey and plans to complete the analysis of survey results in logistics being discussed. This effort is currently in the discussion phase.

4.2 CARBON FOOTPRINT COMMITTEE

4.2.0. Quick Summary

<u>Goal</u>	<u>Initiative</u>	<u>Progress in 2013</u>	<u>Goals for 2014</u>
Determine and track ESU’s environmental impact	Determination of Carbon footprint	Initial estimate at 40,000 tons per year (direct use plus some transport – see below)	Recalculate and compare – possibly improve methodology
Reduce ESU’s environmental impact	Environmentally friendly new construction	New residence halls were constructed with geothermal wells	Construction of new residence halls and the renovation of Monroe Hall were built to LEED standards. Certification underway.
	Increased Energy Star-certified purchases	Under construction	Develop guidelines for use by Procurement Department
	Increased sustainability (Facilities Management-focused) awareness on campus	Added signage to new walkway from Univ. Ridge to Campus to indicate it was bike-friendly	Have the campus community pledge to sustainability Install signs on light switches in 3 buildings
	Pursue campus wide reduction in energy consumption utilizing the EMS (Energy Mgmt. System)	Development of more aggressive building use schedules underway	Curtail energy use in buildings based on effective utilization of EMS
	Develop a building temperature control policy	Under development	To seek approval of the policy

4.2.1 Members

Chair: Syed Zaidi	Director, Facilities Management
Olivia Carducci	Assistant Professor, Mathematics
Scott Heinrich	Manager, Energy and Plant Service, Facilities Management
Mark Stewart	Assistant Professor, Physics Department

4.2.2 History

The Carbon Footprint Committee was formed at the same time as the other committees – originally with the task to examine the document called the “President’s Climate Commitment” and seeing what ideas might be best applicable to ESU. ESU did not sign the commitment, but this committee continues to review ESU’s overall carbon footprint and examines ways that we may lessen our campus’s environmental impact.

4.2.3 Accomplishments

Chaired by Syed Zaidi, the long range goal of the Carbon Footprint Committee is to reduce the amount of greenhouse gases being emitted on campus and by University-related activities (e.g. commuting to and from work). Since its inception, the committee has worked tirelessly to promote sustainability by and their actions have translated into the institution adopting some green practices. Some of the work done in the past includes, ESU’s carbon footprint calculation; procurement of electrical carts and flex-fuel vehicles for parking wardens and custodial crew of Facilities Management; the Universities new constructions done according to LEED standards; energy-saving projects, including replacing light fixtures with energy-efficient ones, replacing toilets, urinals, faucets and shower heads with water-conserving ones, throughout the campus, obtaining a central steam plant, and upgrading some heating and air-conditioning systems.

The Carbon Footprint Committee is currently compiling an inventory of greenhouse gas emissions to determine carbon foot-print of the campus.ESU practices sustainable building operations and maintenance activities that reduce Greenhouse gas emissions.

Some of the sustainable practices on campus include:

- ✓ Installation of Motion sensors in Classrooms and offices
- ✓ LED lighting locations
- ✓ Installation of EMS system in all major buildings
- ✓ Measurement of energy metering of electricity in most major campus buildings and stem in the Science and Tech building
- ✓ Composts and mulches waste from grounds keeping and grass clippings and uses them as amendments in planting beds.

- ✓ Implemented technologies and strategies to reduce the environmental impact of snow and ice removal by using less chemicals and more anti skid and sand
- ✓ Uses native plant species from local sources in landscaping and are implementing ran gardens using these native species.
- ✓ The grounds are maintained in accordance with an integrated pest management (IPM) plan.
- ✓ Renewable Energy credits purchased in 2010-2011 5591 or 5.2% of usage

The Carbon Footprint Committee managed the Waste Management and Recycled Material for the demolition of 350 Normal Street, University Police, and Hawthorn Hall. The analysis is found in the tables below.

Waste Management Report provided by Mecco Demolition for Police Station, Hawthorn Hall, Hemlock Hall.

Steel and Misc. Metal Recycling from Police Station and Hawthorn Hall

Hauler	Net Lbs.	Net Tons
Material sent to E.Schneider	1,162,970	581
Material sent to Camden Iron	146,840	73
Totals:	1,309,810	655

Steel and Misc. Metal Recycling from Hemlock Hall

Hauler	Net Lbs.	Net Tons
Material sent to E.Schneider	1,804,020	902
Material sent to Camden Iron	165,560	83
Material sent to Allegheny Iron	82,300	41
Totals:	2,051,880	1,026

Concrete/Brick/Block Recycling from Police Station and Hawthorn Hall

Hauler	Net Lbs.	Net Tons
Hardrock Trucking	10,578,220	5,289

Concrete/Brick/Block Recycling from Hemlock Hall

Hauler	Net Lbs.	Net Tons
Hardrock Trucking	9,840,000	4,920

C&D Waste from Police Station, Hawthorn Hall

Hauler	Net Lbs.	Net Tons
Waste Management	888,180	444

C&D Waste from Hemlock Hall

Hauler	Net Lbs.	Net Tons
Waste Management	87,460	44

Total Material Removed from Site (tons):	12,378
Total Material Recycled (tons):	11,890
% diverted to recycle:	96.06%

4.2.4 Goals for 2014

- a. Hold symposiums and seminars. It is expected that such events will provide regional businesses and organizations to better understand the opportunities available and advantages associated with procurement of more sustainable products.
- b. Develop guidelines for the procurement of equipment that are Energy Star certified.
- c. Increase sustainability (& energy conservation) awareness on campus (Facilities Management focus).
- d. Develop policies that reflect a commitment to sustainability (See section of Proposed Policies).
- e. Continue to pursue LEED certification for all new construction (including the new Keystone Center).
- f. Reduce building energy consumption utilizing the EMS.

4.3 RECYCLING COMMITTEE

4.3.0 Quick Summary

<u>Goal</u>	<u>Initiative</u>	<u>2012/2013 progress</u>	<u>2014 goals</u>
Improve campus recycling – reduce waste	Sneaker Recycling	Began toward end of spring 2013	Continue
	Textbook recycling	Partnership with local recycler, Charlie Cahn. This has been completed once.	Set up a collection box on campus
	Battery recycling	Ongoing	Continue
	Work with student groups	Discussions began on possible projects the Committee can do with the sustainability-related student groups	Begin a collaborative research with the students.
	Have a presence at the Earth Day event	Recycling group operated a booth at ESU’s annual Earth Day event to raise awareness of recycling efforts	Plan to participate in ESU Earth Day event in 2014.
Raise awareness and improve campus participation in recycling	Increase campus-wide knowledge and positive attitude towards the newly-adopted single-stream recycling.	Some efforts have been made to inform the campus community about the new single-stream recycling.	Be more aggressive with the circulation of information.

4.3.1 Members:

James Maroney, co-chair
 Jeffrey Hardy, co-chair
 David Parfitt
 Dongsheng Che
 Elaine Shuey
 Eun-Joo Lee
 Herb Weigand
 James Martin
 Qian Xie
 Raymond Milewski
 Sailor L. Moore
 Sharon Wary
 Maria Ocola
 Charlie Cahn
 Mildred Nunoo
 Devon A. Lukow
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 Geography Department
 Computing & Communication Services
 Computer Science Department
 Speech-Language Pathology Dept
 Computer Science Department
 Art Department
 Facilities Management
 Business Management Department
 Biological Sciences Department
 Building Care Services - Custodial
 Student Activity Association
 Physics Department
 Community Partners in Recycling
 Exercise Science Department

4.3.2 History/Administrative Notes:

The committee is composed of faculty, administrators, staff, students, and community members who are interested in increasing and improving the University's recycling program. The aim of the Recycling Committee is to encourage the entire campus to participate in recycling efforts in order to minimize waste going into landfills and accomplish the following objectives:

- ✓ Conserving energy,
- ✓ Recovering resources,
- ✓ Protecting the environment,
- ✓ Saving on disposal costs, and
- ✓ Promoting responsible resource use through green purchasing, conservation, and smart technology.

4.3.3 Objectives:

- To encourage entire campus to participate in the recycling and waste minimizing effort in order to maximize the recycling effort and accomplish the campus recycling objectives: to conserve energy, recover resources, protect the environment, save on disposal costs, and promote responsible resource use through green purchasing, conservation, and smart technology.
- To raise awareness of reduced use, reuse, and recycling of resources on the ESU campus among faculty, staff, and students, implement strategies to enhance campus recycling systems, and promote responsible resource use through green purchasing, conservation, and smart technology.
- Increase awareness of single-stream recycling on campus with a common Logo as labels on recycling bins and T-shirts.
- Work with other campus groups - Environmental Club, Green Outreach Committee, and maybe, the National Broadcasting Society
- Collection of Sneakers on campus – (ongoing) Eun-Joo Lee recently received approval from Facilities Management to place a bin on the first floor of the Science and Technology Center
- Collection of Books/Textbooks on campus
- Construction and use of a large, portable bottle-shaped structure that could be used to collect plastic water bottles at athletic events on campus

4.3.4 2012-2013 Accomplishments

Improve campus recycling—reduce waste

The Committee provided comprehensive information via webpage and other media to campus community on new recycling procedures that took effect this academic year. It established informal alliance with Community Partners in Recycling (CPR), a division of Developmental Education Services of Monroe County, a non-profit organization whose mission is to advocate for challenged individuals, assisting them to meet the Human Service needs of the community. CPR will assist ESU in the proper recycling of materials not accepted under ESU’s recycling contract with Chrin Landfills.

At the ESU Earth Day event in April 2013, the Committee manned a booth, with members providing updated recycling information for the campus. There was also the opportunity to recycle electronics, and sneakers.

Currently, projects that the Recycling Committee is undertaking includes developing and putting up new signage for recycling bins to reflect the new campus recycling procedures. As a long-term goal, the Committee seeks to greatly expand the number of recycling containers on campus, to make it far easier for everyone on campus to recycle.

4.4 TRANSPORTATION COMMITTEE

4.4.0. Quick Summary

<u>Goal</u>	<u>Initiative</u>	<u>2012/2013 Accomplishments</u>	<u>2014 Goals</u>
Reduce parking needs on campus	Find an HOV parking solution to reduce parking needs on campus and reward carpoolers	No tangible accomplishments	Continue discussion
Increase walking	Work with borough to explore better ways to walk from campus to Crystal street	Attended a town meeting, but no progress was made.	Pursue the proposal
Increase Biking* main goal	Participate in existing events to promote biking at ESU	Participated in St. Patrick’s Day parade – 2012; Staffed a table on Earth Day (2012,2013); and Participated in the ESU Homecoming Weekend Parade	Participate again in the 2014 St. Patrick’s Day Parade.
	Worked with facilities to recommend locations for bike racks Increase bike parking - Bike racks	More bike racks added at recommended locations	
	Sponsor an event to promote biking	ESU Biking Promotional T-Shirt give away A bike registration form was made available	Do other promotional events
	Track ridership on campus	Bike rack occupancy has been sampled in 2012 and 2013.	Continue
	Bike sharing program	No tangible accomplishments	Continue discussion of the preprogram and possibly start a pilot program

Goal	Initiative	2012/2013 Accomplishments	2014 Goals
Increase rideshare (private or public)	Promote rideshare and carpooling	WeCar program up and running. Data has been collected on ridership which is still rising.	Continue tracking the program's progress
	Promote accessibility to MCTA transit buses	Committee advocated for more bus shelters to be added on campus.	Pursue other alternative options to improve accessibility and usage of the MCTA transit buses

4.4.1 Members:

Co-Chair: Robert McKenzie, Communication Studies

Co-Chair: Mark Stewart

Faculty & Staff Members

Mark Stewart	Physics Department
Rob McKenzie	Communication Studies Department
Scott Deitrich	Athletic Training Department
Madeline Constantine	Student Activities Association
John Bloshinski II	Facilities Management
Herb Weigand	Art Department
Kevin Casebolt	Movement Activities & Lifetime Fitness Department

4.4.2 Objective:

The Transportation Committee seeks to raise awareness of; and accessibility to - more sustainable/alternative transportation methods at ESU. The overall focus of the Transportation Committee for the past few years has been to primarily reduce the number of vehicles on ESU campus. This goal has been targeted by encouraging new perspectives on improving our health, the community and environment by modeling more socially responsible behaviors, including 1) Walking, 2) Biking, 3) Transit, and 4) Rideshare.

4.4.3 Accomplishments:

The following are the activities undertaken by the Transportation Committee since 2012. The results of the various undertakings are also reported.

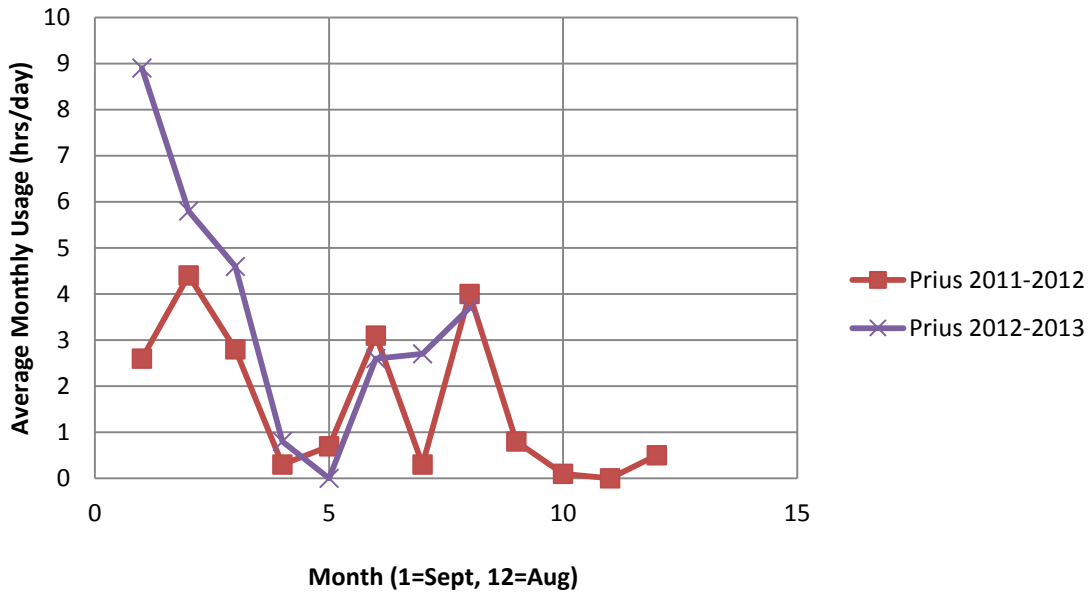
- ✓ **St. Patrick's Day Parade (March 2012):** The transportation committee marched in the Stroudsburg St. Patrick's Day Parade. Six members of the committee participated in this event. The team rode bikes and held an ESU banner to promote biking and ESU. The event proved successful, as the Parade turn-out was good.
- ✓ **Earth Day Campus Bike Ride (April 2012):** As part of ESU's Earth Day celebration, the transportation group sponsored a ride around campus. Riders would be given a form to fill out

to suggest improvements to our campus to make it more bike-friendly. Unfortunately, the turnout was zero, in part, due to the poor weather.

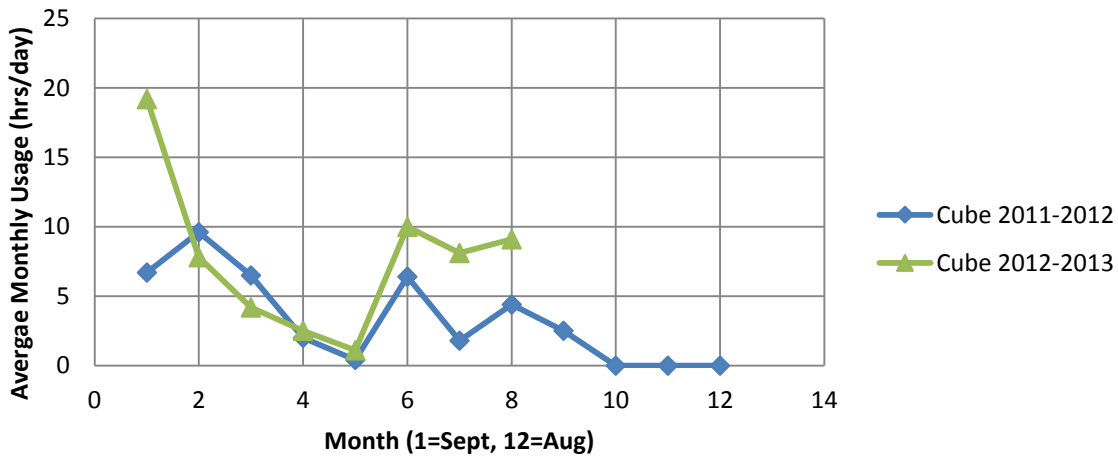
- ✓ **T-Shirt Promotion Event (Spring 2013):** To promote biking on campus, the transportation team designed and printed T-shirts that displayed the “Top 10 reasons to ride your bike at ESU.” Roughly 100 shirts were printed. Roughly a third of the shirts were passed out to people who rode their bikes to campus on two days in April. Another set of shirts were passed out to those who registered their bikes on Earth Day. The surprise nature of the T-Shirt give-away seemed to create a buzz on campus, making the project a success.
- ✓ **Earth Day Bike Registration (Spring 2013):** The transportation team developed a *Googledocs* form that contained information about bike ridership and bike serial numbers. The serial numbers would be shared with campus police in the event that a bike was stolen. Students and staff were encourage to register their bikes through two channels: (1) a form was placed on bikes parked on campus alongside the T-shirt (see T-Shirt Promotion Event) (2) the transportation committee set up a table at ESU’s 2013 Earth Day event and encouraged people to register their bikes then. There were approximately 25 registrations.
- ✓ **Earth Day Table (April 2013):** Also, during ESU’s 2013 Earth Day event, the transportation committee staffed a booth, with a major goal of promoting biking on campus. At the event, the team played games with students, passed out buttons and T-shirts and registered bikes. The event proved to be a success.

One ongoing project for the Transportation Committee is the WeCar Program, run by Enterprise Rent-a-Car. The Committee promotes and tracks this program. Car sharing is often the best alternative to owning or renting a car. ESU students, faculty and staff can now rent affordable, efficient cars through Enterprise's WeCar by the hour, day, or overnight. WeCar is a membership-based, automated car rental option that offers a sustainable and efficient transportation alternative to the ESU community. Registered members have access to a Nissan Cube and Toyota Prius Hybrid, which are centrally located in the ESU Police Department parking lot. WeCar also addresses the university's commitment to sustainability by providing fuel-efficient vehicles, including a hybrid. A university priority is to continually implement strategies that reduce its carbon footprint. WeCar was implemented to encourage ESU's students to leave their own cars at home, share rides and reduce the number of cars on the road. The program does seem to be slowly gaining ground. The graphs below show the average hours per day that the WeCar two vehicles are being used (raw data courtesy of Andrew Hatten at Enterprise). One can see that the average usage per day for both cars was greater in 2012-2013 compared to 2011-2013.

WeCar Usage Data, Prius



WeCar Usage Data, Nissan Cube



Tracking single occupancy vehicle (SOV) trips to campus is another ongoing project that the committee is undertaking. In fall 2011, the Transportation Committee computed the ratio of the number of SOVs to multiple occupancy vehicles that were parking at ESU. The result was 92% SOV. No further sampling was done in 2012-2013 to see if the situation has improved.

The Transportation Committee also sampled bike rack occupancy rates around campus. This was done to identify locations where more racks could most optimally be deployed, as well as to sample the level of bike usage at ESU. If another sample is taken in fall 2013, this could be compared to this data to see if bike usage is trending upwards.

Date	Sunny	70 degrees	Sunny	80 degrees
	9/11/2012	11:30 AM	9/12/2012	1:30 PM
Rack Name	Actual	Max	Actual	Max
Gessner	2	2	5	2
Sci-Tech	3	6	3	6
Stroud Circle	4	8	1	8
Stroud Back			2	8
Zimbar	5	16	4	16
Monroe	2	16	1	16
University Center			0	4
Fine Arts	2	4		
Koehler SMITH	7	10		
Tunnel of New Residence Hall	3	6		

Occupancy Rate on 9-11-2012 = 28/68 ~ 42%

Occupancy Rate on 9-12-2012 = 16/60 ~ 27%

As part of a current project, the Transportation Committee recently passed (7-1) a proposal to repurpose some of the smoking huts as bike shelters. This proposal was forwarded to ESU's President, Dr. Welsh.

4.4.4 Goals for 2014

Our committee has established the following goals for the 2010-2011 academic year, with a primary focus on Single Occupancy Vehicle (SOV) trips to campus.

- **Goal #1** - Establish a statistically relevant study on **single occupancy car trips** to campus; and a survey analysis of student, faculty and staff opinions of sustainable transit options with the target of further developing strategies to minimize or reduce these trips, exploring the viability of creating of regional satellite parking lots for commuters.
- **Goal #2** - Continue to build momentum and raise awareness about the many positives of biking to/on campus: -- a) increase bike parking [x] b) identify/build an ESU bike route /paths c) develop encourage a bike sharing program on-campus.

- **Goal #3** - explore unique ways to promote and encourage more rideshare/ carpooling options on campus. (i.e. Zimride/ Carpool bulletin boards)
- **Goal #4** - promote student, faculty, staff accessibility to MCTA Transit a monthly transit lunch special events).
- **Goal #5** - build upon the success of Annual Bike Day Event - Apr 2011

In Fall 2012, the Transportation Subcommittee began investigating commuter traffic at ESU to survey for SOV trips on campus. The Transportation Subcommittee suspects that the vast majority of vehicle trips to campus are single-occupancy and this contributes to an increased carbon footprint and parking dilemmas. While more observations are necessary from multiple lots, two observations prior to finals week in December show that 97% of car trips to “the Pit” parking lot are SOV. *Observation 1* – showed 44 SOV and 1 MOV (multiple) in a 15 minute time span. A second independent observation – showed 240 SOV and 9 MOV in a 60 minute observation also taken at “the Pit.” **** 97% (284/294) of car trips to the Pitt are SOV.** The motivation for this investigation was to obtain data to use in encouraging efficient ride-sharing among students and faculty as well as decreased overall vehicle use.

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APPENDIX A.—SUSTAINABILITY PROGRAMS AT ESU

Biology – Environmental Studies Degree Program

The curriculum in Environmental Studies has been designed to meet the needs of students seeking an integrated interdisciplinary background within the tradition of a liberal education. The program is intended to provide students with an opportunity to select courses from various disciplines that will strengthen their understanding of environmental problems. The broad interdisciplinary nature of the program permits students to enroll in courses offered by different academic divisions and by various departments.

Bachelor of Arts — Environmental Studies Major - 37 semester hours

Coordinator: Professor Paul Wilson

Bachelor of Science – Environmental Studies Major - 57 semester hours

Coordinator: Professor Paul Wilson

Interns have served with park departments, state and federal wildlife agencies, water and sewer treatment plants, and a variety of government conservation agencies both in the United States and abroad.

Sustainability Components – not programs, but courses or sets of courses that have an environmental focus

Marine Science Consortium Courses

Courses taught with a BIOM rubric are those courses normally taught at the Marine Science Consortium field station at Wallops Island, Va. These BIOM courses are taught through the Department of Biological Sciences and, unless specified otherwise in the course description, BIOM courses will count as Biological Sciences courses toward a major within the Department.

Coordinator: Professor James C. Hunt

This is a directed degree program whereby students have an opportunity to acquire firsthand knowledge via field experiences at the Wallops Island Marine Station as well as in-depth training in the theoretical aspects of marine science.

Program components of the Marine Science Consortium include Barrier Island transects, salt marsh expeditions, beach profiling, water sampling, organism investigations, plankton labs, and guest lectures.

PHYS 117: Energy

This course introduces the concept of energy in all its forms and discusses its role in modern society. Discussions include sources of energy, along with their social and environmental impact.

PHYS 118: Solar Energy

This is a course designed to inform the student of the source of solar energy, what's being done to harness this energy, and how students may benefit from solar devices they may build themselves. The course requires very simple calculations and includes the construction of one solar device. Also included are several detailed analyses of the economics of home solar systems.

APPENDIX B— FACILITIES

Marine Science Consortium

The university is a member of the Marine Science Consortium which provides students in Marine Science and related disciplines with access to a marine station for field trips, summer courses, and research. The Consortium's field station at Wallops Island, VA., is only a short distance from Chincoteague and Assateague Islands, which are well-known for their abundant wildlife. For more information, see the Biological Sciences section in the Degree Programs and Course Descriptions portion of this catalog. Non-matriculated students have the opportunity to take varied courses to acquire academic credit and professional competencies.

The official Summer Session bulletin, containing information on courses, expenses, and general regulations, may be obtained in late February by contacting the Summer Sessions Office at 570-422-2853.

Stony Acres

Stony Acres, a 119-acre student-owned recreation area, is located just nine miles north of the university in Marshalls Creek. A multipurpose lodge, six cabins, a climbing tower, a challenge course, a camping equipment program and a variety of activities including canoeing, camping, frisbee golf course, cross country skiing, ice skating, hiking, fishing, and picnicking have made Stony Acres a popular spot year round. The Stony Acres lodge is available free of charge to campus organizations for meetings, workshops and other programs. For lodge reservations, call Stony Acres directly at 570-223-8316. Cabin reservations and other information may be obtained by contacting the University Center at 570-422-3749.

Alumni Building

Henry A. Ahnert Jr. Alumni Building meets LEED certification; features ground-source heat pump heating/ cooling, also recycled/ green construction materials and finishes.