

# Wartburg College Sustainability Plan

## Proposed by the Energy and environmental Sustainability Initiative (EESI)



### Executive Summary

At Homecoming 2010, the 2010-2020 Wartburg College Strategic Plan was unveiled. The plan contains six goals with specified objectives and benchmarks which the college will strive to reach. With respect to sustainability, goal 4 states:

“Provide an outstanding teaching, learning and living infrastructure.”

Objective 1: “Develop and implement a master campus plan that addresses current and future facility needs, *energy requirements*, technology, optimum space usage, and *environmental sustainability*.”

1.3: Establish an environmental sustainability plan and policies.

The Sustainability Plan is a dynamic and living document designed to present and implement goals related to sustainability relative to the campus, students, faculty, staff, alumni and surrounding community members of Wartburg College.

The mission, strategic plan, and learning outcomes of Wartburg College promote the importance of sustainability in all aspects of campus activities and infrastructure. Sustainability is broadly defined to encompass not only environmental, but also social and economic aspects as well. In documents, Wartburg uses the terms Stewardship and Sustainability interchangeably.

Wartburg College defines Sustainability/Stewardship as:

*The responsible utilization of resources (natural, manufactured and economic) in a fashion that minimizes, as much as possible, the impacts on the environment and socio-economic parameters. This pattern of use will allow the availability of limited resources for future generations as well as help promote healthier socio-economic conditions.*

Currently, Wartburg College serves approximately 1800 students, over 500 personnel, and thousands of visitors each year through 13 academic/office buildings, 22 residence hall buildings, and 18 single family structures covering 985,000 square feet spread over 165 acres of land. Wartburg College presents a large environmental footprint<sup>1</sup> in the Waverly community. It is the objective of EESI that the following goals will allow Wartburg College to increase its level of sustainability today and more so in the future.

The Plan does not attempt to encompass every aspect of sustainability, but selects specific goals in areas in which Wartburg College can achieve real and measurable progress. It is also recognized that as programs grow or develop, absolute consumption may increase while still meeting efficiency and improved per unit measures.

Eight functional areas have been identified:

I. [Planning and Development](#)

II. [Purchasing](#)

III. [Energy](#)

IV. [Waste Diversion](#)

V. [Transportation](#)

VI. [Campus Environment](#)

VII. [Student Life](#)

VIII. [Sustainability in the Curriculum](#)

A summary of the vision and goals for each functional area follows.

<sup>1</sup> For the purposes of this document *environmental footprint* is a measure of human demand on the Earth's ecosystems. It compares human demand with planet Earth's ecological capacity to regenerate. It represents the amount of biologically productive land and sea area needed to regenerate the resources a human population consumes and to absorb and render harmless the corresponding waste.

## I. Planning and Development

**Vision:** The College will demonstrate a commitment to sustainability in its campus development, growth, and master plan by purposefully incorporating environmental stewardship.

### Goals:

1. **LEED Equivalent Principles:** All major projects<sup>2</sup> (new buildings and major capital renovations) initiated after June 1, 2011, shall meet or exceed the equivalent of U.S. Green Building Council's guidelines for LEED<sup>3</sup> (Leadership in Energy and Environmental Design) certification of the silver level.
2. **Design Professional Services Selection:** For all major capital projects initiated after June 1, 2011, preference shall be given to design professionals with LEED certification or equivalent experience.
3. **Energy Efficient Lighting and Lighting Systems:** The design of new lighting and lighting control systems shall comply with the latest version of the American Society of Heating, Refrigerating & Air Conditioning Engineers/Illumination Engineering Society of North America (ASHRAE/IESNA) 90.1, Energy-Efficient Design of New Buildings Except Low-Rise Residential. The lighting quality and light uniformity shall comply with Illuminating Engineering Society of North America (IESNA) Standard, Current Edition.
4. **Electronic Business Solutions:** All departments shall encourage electronic business solutions to reduce the demand for paper and travel, such as electronic communication systems and teleconferencing.

## II. Purchasing

**Vision:** The College shall adopt a campus-wide environmentally and socially sensitive purchasing plan that is consistent with best practices in higher education (e.g. AASHE). These policies will favor purchase of products with a reduced environmental and social impact.

### Goals:

1. **Vendor Code of Conduct:** Wartburg College is committed to sustainable purchasing practices. Sustainability requirements shall be included or considered in all College requests for proposals (RFP). RFPs should include a request to describe in detail how the company implements these items and it will be taken into consideration during the evaluation and decision-making process. Departments will also take these items into consideration for other purchasing decisions. These requirements may include criteria for:
  - a. Energy efficiency (such as Energy Star designations)
  - b. Energy conservation
  - c. Waste reduction
  - d. Packaging reduction
  - e. Trade-ins, retrievals, refurbishment of used products
  - f. Use of recycled and recyclable materials (products, packaging, shipping materials)
  - g. Responsible shipping and transportation usage
  - h. Reduced water usage
  - i. Reduced paper usage (including e-procurement)
  - j. Waste and water treatment process
2. **Energy Efficiency:** Departments shall specify U.S. EPA Energy Star<sup>4</sup> equivalent or better ratings on applicable energy consuming products when available and practical. When Energy Star labels are not available, all purchasing units shall choose products that are energy efficient.

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<sup>2</sup> Major project is defined as a facility over 20,000 gross square feet. A major capital renovation is defined as a construction budget that will cost more than 50% of the facility's replacement value.

<sup>3</sup> LEED Silver refers to a certificate program by US Green Building Council's Leadership in Energy and Environmental Design (LEED) Green Building Rating System™.

<sup>4</sup> Energy Star is a voluntary labeling program of the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy that identifies energy efficient products. Qualified products exceed minimum federal standards for energy consumption by a certain amount, or where no federal standards exist, have certain energy saving features.

### 3. Source Reduction

- a. Departments shall purchase products with a minimum of 30% Post Consumer Waste (PCW) recycled content for paper products or, at the minimum, EPA standard for other products or bio-based materials, when available and practical.
  - b. Departments shall consider vendor packaging in their decision, with a preference to that which is minimal, reusable, contains a minimum of hazardous and non-recyclable materials, and meets or exceeds the recycled material content levels in the U.S. EPA Comprehensive Procurement Guidelines for Paperboard and Packaging.<sup>5</sup>
  - c. The College shall reduce the use of disposable products by specifying and purchasing products that are reusable or refillable whenever feasible and practical.
  - d. Departments shall work together to order items in bulk when they can be shared or split whenever feasible to decreasing shipping impacts and potentially costs.
4. **Buy Local:** Departments shall be encouraged to purchase locally grown and produced products, defined as within Iowa or a 500 mile radius of Waverly, IA, to minimize the environmental costs associated with shipping.
- a. When available the preference shall be for items produced, grown, or built in the USA.
  - b. Labor and Trade conditions of the vendor and manufacturer should be considered such as non-exploitation, fair trade, or sweatshop free with a preference for vendors who can provide items that are produced in a certified sustainable manner (Rainforest Alliance, Fair Labor Associate, etc.).
5. **Green Goods and Services:** Departments shall be encouraged to use “green” certified products and services such as, but not limited to, Green Seal, Ecologo, FSC, etc.
- a. Preference should be given to items which are post-consumer recycled.
6. **Information Technology Procurement:** Electronic purchases that fall under EPEAT (Electronic Product Environmental Assessment Tool) <sup>6</sup>will meet the requirements of EPEAT Silver level with preference for EPEAT Gold when applicable.
7. **Licensed Material Oversight:** Work with vendors to ensure that apparel bearing the institution’s logo is made under fair working conditions; institutions promote health, safety, and secure livelihoods for domestic and global workers. To support this effort we could consider an organization such as the Fair Labor Association or Worker Rights Consortium <sup>7</sup>.
8. **E-procurement:**
- a. Departments shall move towards paperless processes by reducing the use of paper, toner, storage file space, and other related articles.
  - b. Departments shall require, whenever possible, all bidders for goods and services to:  
submit bids/proposals electronically or, at a minimum, on recycled paper, double-sided and without extra materials not requested,

## III. Energy

**Vision:** The College shall commit to environmentally sustainable operations through energy efficiency and conservation.

### Goals:

1. **Metering:** By June 1, 2015, 75% of the utility systems shall be metered at the building of consumption to measure effective use or waste in the system.
2. **Energy Portfolio:**
  - a. The College will continue to promote and support Waverly Light and Power so that the combined energy portfolio may include at least 25% from renewable sources by 2025.<sup>8</sup>
  - b. Continue to investigate feasibility of on-campus renewable energy generation.
3. **Energy Conservation**

<sup>5</sup> <http://www.epa.gov/osw/consERVE/tools/cpg/products/paperbrd.htm>

<sup>6</sup> EPEAT is a tool funded by the US EPA to evaluate the environmental performance of electronic products.

<sup>7</sup> <http://www.workersrights.org/howto/>

<sup>8</sup> Similar to that of the Culver/Judge Energy Legislation Initiative.

- a. Departments shall develop and act on individual plans for energy reduction, energy efficiency, and energy conservation goals. Departmental Goals will be included in this document to track progress along with the appropriate Vice President.
- b. ITS should release parameters for energy settings and implement them on new machines.
- c. Computer Labs should be remotely shut down daily and seasonally when closed.
- d. The College shall achieve reductions in Greenhouse Gas (GHG) emissions consistent with the strategies developed by option 1 of the Iowa Climate Change Advisory Council<sup>9</sup> created under Iowa Code
- e. § 455B.851 in 2007.

#### IV. Waste Diversion

**Vision:** The college shall reduce the consumption plus increase the reuse and recycling of materials and resources, with the long-term objective of contributing to the development of a waste-free society.

**Goals:**

1. **Diversion:** Work towards achieving a diversion rate of 30% by 2015, with 80% of recyclable materials being diverted by 2020
2. **Waste Reduction:** Decrease the overall volume of materials consumed by the college.
  - a. Reuse or if needed Recycle electronic waste in a prudent and responsible manner.
  - b. Encourage departments to continue identifying strategies and programs to mitigate waste.
  - c. **Printing:** Minimize printing and go paperless when feasible. Select duplex settings as the default for printers and copiers, reuse blank sides of paper for printing<sup>10</sup>, and use recycled toner whenever possible.
    - i. Each department should evaluate their operations to identify procedural changes which can be implemented to decrease paper use.
    - ii. Departments should work together to decrease mailings.
    - iii. ITS should release parameters for energy settings and implement them on new machines.
    - iv. Reduce campus-wide printing by 10% by June 1, 2013.
3. **Reuse:** Promote and support programs that reuse and repurpose surplus items such as furniture, textiles, lamps/light bulbs, batteries, paper, and other products feasible.

**Recycling:** Continuing support of a recycling program that is moving toward being as efficient as possible while providing opportunity to increase recycling rates and overall participation.

#### V. Transportation

**Vision:** Develop transportation strategies that reduce fuel use, air pollution, and carbon dioxide emissions while providing opportunities and support for alternative transportation, including bicycle and pedestrian infrastructure.

**Goals:**

1. **Emissions:** The College shall reduce the emissions related to the campus vehicle fleet use by:
  - a. Increasing the number of passenger miles traveled (number of passengers times the miles traveled) for college business and activities, relative to total fleet mileage.
  - b. Working with other agencies and partners to coordinate travel.
  - c. Making future changes in the Wartburg Fleet by increasing use of sustainable biofuels and alternate fuels while increasing the percentage of Flex Fuel, hybrid, and electric vehicles/equipment in the fleet.
  - d. Reduce vehicle idling.
  - e. Work with vehicle leasing contractors in offering fuel-efficient vehicles.
2. **Alternative Transportation:** The College shall reduce the impact of single-occupant vehicles coming to campus by:

<sup>9</sup> January 2, 2009, The Iowa Climate Change Advisory Council came to consensus on two greenhouse gas reduction scenarios and 56 policy options in their 469-page final report to the Governor and General Assembly: 1) 50% cutback from 2005 emissions by 2050, with interim goals of 1% by 2012 and 11% by 2020; and 2) 90% cutback from 2005 emissions by 2050, with interim goals of 3% by 2012 and 22% by 2020.

<sup>10</sup> ITS has allowed reuse of paper in the printers if the paper being used was originally printed on the same machine and is clean of creases, rolls, staples, rips, etc.

- a. Supporting the new or expanding programs and partnerships with municipalities using the local bus, van pool, and ride share systems to provide alternatives to individual commuting.
- b. Increasing parking system controls or incentives to encourage alternatives to and achieve reductions in the number of single passenger commuter vehicles.
- c. Expanding the use of teleconferences, video conferencing, and interactive webinars in lieu of travel.
- d. Coordinating travel of employees attending the same event: Encourage travelers to rideshare and allow multiple vehicles to be taken to the same destination only when absolutely necessary. This could pose a financial savings as well as carbon.
- e. Encouraging walking and biking by working with the City of Waverly to enhance safe walking paths and bike lanes to the College, and provide bicycle programs such as bike storage. Consideration should be given to Wartburg College supported incentives.
- f. Exploring remote work alternatives (telecommuting) and flex-scheduling that meets the needs of the institution in a sustainable fashion while decreasing needs for commuting.

## VI. Campus Environment (Water, Land and Air Quality)

**Vision:** The College will adopt best-management practices that improve air and water quality plus land practices that reduce run-off and improve biodiversity.

### Goals:

1. **Irrigation Water Consumption:** The College will adopt best-management practices for minimizing irrigation and increased use of graywater.
2. **Landscaping BMP's:** Follow best-management practices (BMP) in regard to landscape design and maintenance, including recommendations from the US Department of Energy's Federal Energy Management Program. Considerations should be given to Xeriscaping, native plantings, no-mow zones, and biodiversity, etc.
3. **Organic Campus:** The College will work toward using Organic Materials Review Institute (OMRI) listed pesticides and fertilizers on campus.
4. **Integrated Pest Management:** Develop and follow a plan that conforms to the EPA IPM principals.<sup>11</sup> Implementing integrated pest management (IPM) plans is important to address the issue of ridding the property of pests while avoiding methods that put the long-term health of students and staff at risk.
5. **Stormwater Management:** The College will adopt best management practices for storm water control on campus as identified by environmental agencies such as Iowa Department of Natural Resources, Natural Resource Conservation Service, Soil and Water Conservation District, etc.
6. **Indoor Air Quality:** Wartburg College is committed to providing a learning, working, and living environment of acceptable indoor air quality (IAQ).<sup>12</sup> Wartburg College will develop an IAQ plan that applies to all campus staff, students, and visitors.
7. **LEED Equivalent Operations and Maintenance:** Wartburg College will work toward following the LEED established operation guidelines in relation to operations and maintenance in existing buildings. Until this is accomplished operation and maintenance decisions shall consider the following:<sup>13</sup>
  - a. Impacts on the surrounding site
  - b. Energy consumption
  - c. Usage of environmentally preferable materials
  - d. Indoor environmental quality
  - e. Water consumption

<sup>11</sup> <http://www.epa.gov/opp00001/factsheets/ipm.htm>

<sup>12</sup> Acceptable indoor air quality is air in which there are no known contaminants at harmful concentrations and with which a substantial majority of people exposed do not express dissatisfaction. Poor indoor air quality may be caused by vapors, dust generated in the work environment, materials infiltrating from outside sources (such as pollen or engine exhaust), contaminants associated with fungal growth or deficiencies in the ventilation system.

<sup>13</sup> <http://new.usgbc.org/leed/rating-systems/existing-buildings>

## VII. Student Life

**Vision:** Provide students with an opportunity to live in a sustainable manner, learn how to manage their environmental footprint, and enhance life-long sustainable living skills.

### Goals:

1. **Residential Life:** Through various efforts the college will work to minimize its carbon footprint on the residential portion of campus, potentially including a reduction of small appliances, education on energy efficient use of heating and cooling plus expanded participation in recycling programs.
2. **Sustainable Community:** Develop a designated space on campus where students can live using sustainable practices while providing tools to support the measurement of success. This community could include, but is not limited to, the following:
  - a. In time, the utility use of the community may be monitored through the year and reported to students comparing their reduction to a pre-established set of parameters.
  - b. Residents agree to live with minimal electronic appliances only necessary to support their academic experience such as computer, cell phone, and a CFL task lamp.
  - c. Service suites of a sustainability nature would be included in the community.
  - d. A communal kitchen and common lounge area would be available for social and functional needs of the residents.
3. **Student Engagement:** Support and facilitate the engagement of student participation on and off campus to enhance their personal and academic involvement in sustainability.
4. **College to Student Communication:** Transition as much communication as possible to digital forms. Departments shall work together to consolidate printed communications in cases it is necessary to mail or hand them to students.
5. **Expression of Commitment to Sustainability:** Departments shall communicate with incoming students their expectations about living on a sustainably-oriented campus. Working with the sustainability office, they can provide specifics to students on ways to encourage the growth of sustainability.
6. **On campus events:** Events on campus or those sponsored by the College should follow the “sustainable event guide” provided by the sustainability office whenever possible.

## VIII. Sustainability in the Curriculum

**Vision:** Wartburg College will pursue a sustainable future through the curriculum by working to provide educational opportunities for students to facilitate their acquisition of the knowledge, skills, and collaborative work ethic necessary to engage effectively in public discourse, policy debate, and in other hands-on problem-solving matters relating to environmental, social, and economic sustainability.

### Goals:

1. Increase efforts to recruit high school students, as well as transfer students, who are seeking an education in sustainability at an institution that practices sustainability.
2. Increase the sustainability experiences for freshmen through first-year seminars, core general education requirements, or living/learning communities.
3. Continue to participate in national efforts to understand and promote sustainability education.
4. Increase the curricular offerings and opportunities in sustainability to students through majors, minors, certificates, internships, service learning, and living/learning communities, and partnered research.
5. Support incorporation of sustainability in the curriculum and in faculty research.
6. Encourage inclusion of interdisciplinary courses related to sustainability into the curriculum.
7. Integrate the principles of sustainability and ecoliteracy into all curricular areas, as well as extracurricular and dormitory experiences.