

**Ball State University  
Unit-level Sustainability Planning**

*[as mandated in Goal IV\_F of the 2007-2012 Ball State University Strategic Plan]*

A Sustainability Plan

for the

Field Station and Environmental Education Center  
College of Sciences and Humanities

Submitted to  
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Provost and Vice-President for Academic Affairs

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## Achievements to Date

The following are our short-form question responses within the categories of Governance and Administration, Operations, Curriculum and Research, and Community Service and Outreach. In developing these short-form responses, we are pleased to report significant achievements in these areas and have identified opportunities for further development/transformation.

[Provide brief descriptions for each affirmative or goal response]

### **Governance and Administration**

**Y N Goal**  
   **1.** The unit has standing committees to address issues of sustainability.

**Y N Goal**  
   **2.** The unit gives assigned load and/or a staff position dedicated to sustainability initiatives.

Not specifically, though generally FSEEC staff look for ways to improve operations in terms of energy and resource efficiency.

**Y N Goal**  
   **3.** The unit has established policies that encourage sustainability initiatives. These are contained in the FSEEC mission statements.

**Y N Goal**  
   **4.** The unit has sustainability integrated into its mission statement. Sustainability is explicitly contained in both the Education and Research Mission Statements. The first relates to land use issues and restoration, while the second focuses more on the built environment.

**Y N Goal**  
   **5.** The unit maintains active membership in organizations engaged in promoting sustainability.

FSEEC is a member of the Natural Areas Association (NAA – [www.naturalarea.org](http://www.naturalarea.org)) and the Organization for Biological Field Stations (OBFS – [www.obfs.org](http://www.obfs.org))

For advocacy/research organizations that promote sustainability, an unknown number of memberships by FSEEC staff include at least the following: Union of Concerned Scientists; Natural Resources Defense Council; Alaska Wilderness League; Red-tail Conservancy; The Nature Conservancy; and Heifer International, among others.

**Y N Goal**

6. The unit encourages and rewards research related to sustainability. Investigating sustainable land use is a component of the FSEEC mission statement. We are collaborating with faculty from CAP to research “green building” with the straw bale building and associated energy and resource management.

**Y N Goal**

7. The unit encourages and rewards the integration of sustainability issues into course material.

As we are not an academic unit and we do not have courses. However, we offer nature interpretation tours through greenhouses, prairies, woodlands, wetlands, etc. We emphasize concepts of sustainability, particularly in landscaping.

**Operations****Y N Goal**

1. The unit purchases/uses Energy Star Office and Telecommunications Equipment. When possible

**Y N Goal**

2. The unit has policies to restrict paper use. Only via encouragement to use double-sided printing and copying, use draft settings on printer when possible, and re-use printed paper when possible.

**Y N Goal**

3. The unit uses recycled paper. Our paper comes from the Biology Department. Whatever their standard is, we use that.

**Y N Goal**

4. The unit recycles all materials accepted by the university system. We recycle most materials. We also re-use some greenhouse soil and do some composting.

**Y N Goal**

5. The unit has appropriate recycling bins throughout its offices. In the Christy Woods classroom we collect recyclables. Other recycling material is collected on trash pick-up days or when there is a large amount.

**Y N Goal**

6. The unit has policies that encourage the use of teleconferencing capabilities to Limit travel.

This is not applicable to our unit at this time.

**Y N Goal**

7. The unit specifies hybrid electric vehicles for travel. Staff sometimes request hybrid electric vehicles for professional travel. These vehicles are not necessarily more efficient for long-distance travel on highways, but would be preferable for shorter trips with multiple stops. We as a unit do very little traveling outside Delaware County. The truck used by FSEEC staff and students is a new model and uses E85 fuel.

**Y N Goal**

**8.** The unit shows preference for sustainable lodging for professional travel. This may be something we look for in the future. We do very little overnight traveling.

**Y N Goal**

**9.** The unit uses washable dinner/service ware for its meetings/receptions. Not applicable. As individuals we try to minimize waste.

**Y N Goal**

**10.** The unit purchases/uses remanufactured office furniture. We get most of our furniture as hand-me-downs from Biology.

**Y N Goal**

**11.** The unit purchases/uses sustainable materials for office furnishings. Yes, to the extent possible. We don't really purchase any office furnishings.

**Y N Goal**

**12.** The unit discourages the use of single-occupant automobile travel. When possible. Again, we rarely leave Delaware County.

**Y N Goal**

**13.** Classroom, Office and/or Restroom lighting for the unit is controlled by occupancy sensors.

Our office is in the South Service Building. The greenhouses do not have restroom facilities. Lights are not controlled by occupancy sensors. Lights are turned on and off as needed, and this is probably the most efficient way to control lighting in these locations.

**Y N Goal**

**14.** The unit's thermostats are set to minimize energy use for heating and cooling. We have no control over thermostats in the classroom and office. Greenhouses are controlled by thermostats remotely through the Environmental Control shop.

**Curriculum****Y N Goal**

**1.** The unit has courses dedicated to issues related to sustainability. NA

**Y N Goal**

**2.** The unit has courses with sustainability content. NA

**Y N Goal**

**3.** The unit has courses in which students are encouraged to address sustainability issues in their assignments. NA

**Y N Goal**

**4.** The unit recognizes sustainability courses from other departments as legitimate electives for credit in its programs. NA

**Y N Goal**

**5.** The unit has dedicated sustainability courses that can be taken for credit as part of a major or minor outside of the unit. NA

**Research****Y N Goal**

- 1.** Members of the unit have conducted research on issues of sustainability in their discipline.

FSEEC properties are used for various kinds of research, some of which focuses on sustainability. One example is to try to track the effects of increasing urbanization on plant and animal communities.

**Y N Goal**

- 2.** Members of the unit have published on issues of sustainability in their discipline. The Director has prepared a manuscript "Caring for Land Trust Properties" that will be published this year by the Land Trust Alliance. Members of academic units who use the properties for research have published on sustainability subjects including biodiversity.

**Y N Goal**

- 3.** Members of the unit attend conferences that address issues of sustainability. John Taylor has attended Natural Areas Association and other conferences focusing on sustainable land management, as well as assisting with the 2007 Living Lightly Festival, conducting a tour of the Cooper Farm for participants in the Greening of the Campus conference in 2007. Shari Grant and Cheryl LeBlanc have attended presentations and workshops on specific issues that can relate to sustainability, such as prescribed fire as a landscape management tool and the recent public meeting about gypsy moths.

**Y N Goal**

- 4.** Members of the unit belong to associations dedicated to sustainability issues. Director Brown is a member of the Soil and Water Conservation Society, Society of Wetland Scientists and other professional organizations that have efforts to enhance sustainability. John Taylor is a member of Natural Areas Association. Shari Grant and Cheryl LeBlanc are members of AERGC (Association of Education and Research Greenhouse Curators). Outside of work we are all also very interested in preserving and restoring the natural environment.

**Y N Goal**

- 5.** The unit has hosted workshops on issues of sustainability. FSEEC has hosted the Basic Wildland Firefighter Training workshop and the Prescribed Fire for Managers workshop conducted by the Indiana Department of Natural Resources on an alternating biennial basis. Fire management is a tool that relates to sustainability by favoring native species over invasive ones.

**Y N Goal**

- 6.** The unit has hosted conferences on issues of sustainability. FSEEC served as a host for the Master Naturalist program through Purdue University (2006). We have also had at least two tours of field station properties in association with Greening of the Campus conferences.

**Community Service and Outreach****Y N Goal**

- 1.** The unit engages in public and/or outreach activities that address issues of sustainability.

Four months of the year FSEEC hosts weekly tours of Christy Woods for the general public. In addition, we provide tours to area schools and interested groups throughout the year. FSEEC staff also serve as a resource to area individuals and groups working on issues related to sustainability.

**Y N Goal**

- 2.** The unit is in partnership with others in the community in the pursuit of sustainability.

Brown and Taylor serve on the Land Stewardship and Acquisitions committee of the Red-tail Conservancy. John Taylor was involved in early planning stages for the Living Lightly Festival, and an original member of the Citizens Advisory Committee to the Muncie Sanitary District.. These are personal, not professional pursuits. Shari Grant and Cheryl LeBlanc may have outside pursuits related to sustainability as well; certainly they have interest and background.

**Y N Goal**

- 3.** The unit participates in community events that address issues of sustainability. It would be beneficial to pursue some of the community opportunities that arise. However, it is often difficult to participate in such events (such as leading wildflower tours for Red-tail Conservancy or Minnetrista, etc.) and complete FSEEC priorities. Therefore, much of what could be done can not be considered work-related.

**Y N Goal**

- 4.** The unit has initiated community endeavors in pursuit of sustainability. The Master Naturalist Program and public tours at Christy Woods (to be expanded to Cooper Farm in 2008).

## **Existing conditions as baseline (data as available)**

In preparing our short-form responses to the questions in the previous section, we accumulated the following data sets. These comprise the numerical underpinnings specific to our Center.

### **A List of Academic Offerings**

#### **Topical Sustainability Lectures**

**NA**

#### **Topical Sustainability Modules**

**NA**

#### **Sustainability Courses**

**NA**

#### **Sustainability Programs**

**NA**

#### **Sustainability Concentrations**

**NA**

#### **Sustainability Degree Offerings**

**NA**

#### **Sustainability Immersive On-and Off-Campus Experiences**

**NA**

**Note: The Center does not offer academic courses on its own, but does support offerings by Biology, NREM, Landscape Architecture and other units.**

**Existing conditions as baseline (data as available)**

**A List of Faculty, Staff and Student Activities**

**Professional Academic Organizations**

**Professional Staff Organizations**

**Student Associations and Clubs**

**Hybrid Fleet Vehicle Use**

**Hybrid Electric Shuttle Bus Use**

**Bicycling**

**Carpooling**

**MITs Bio-Diesel Bus Use**

**Conference Travel; Carbon Offset Purchases (and others...)**

**Existing conditions as baseline (data as available)**

**A List of Operational Commitments in the Building(s) We Occupy**

**Building Use: Lamps, Occupancy Sensors, Waterless Urinals**

**Material Use/Recycling: Paper, Water, Cartridges, Cans, Glass, Wet Garbage**

**Food Use/Recycling: Local Sourcing, Washable Dinnerware**

## Goals

Given our assessment of where things stand, we have identified the following goals for our unit.

### **Governance and Administration**

We are currently engaged in a master planning activity for the entire field station as part of a NSF grant. Sustainability and environmentally sensitive activities will be a major thrust of that planning process. Two future construction projects will (hopefully) include replacement of the Orchid Greenhouse and development of an environmental education center on one of the properties (probably Cooper-Skinner). We have had discussions with Jim Patchett from the Conservation Design Forum in Chicago and hope to be able to involve his company in the master planning process.

### **Operations**

As mentioned above, one of our key goals for operations is to replace the Orchid Greenhouse. It presently has major problems with heating, cooling, supply of pure water (to enhance orchid growth) and a host of other facility issues. The quality of our greenhouse operation is compromised by the sad state of this building and the need for more space for the display plants (used for Commencement and other campus programs) and the teaching collection.

Another goal for the field station is to get access to the field on the east side of Jake's Creek. This relates to sustainability because we may use it for biofuels or C sequestration.

### **Curriculum**

Our educational goal is to provide a setting for educational experiences in an outdoor environment. As discussed above, the FSEEC does not offer courses under its own structure, but it does support other academic units, especially Biology and NREM which do offer relevant courses.

### **Research**

The goal of the sustainability research for the field station is to evaluate the impacts of humans on the environment and to assess the changes in plant and animal communities over time. A number of scientists are working on research projects (e.g., Dave LeBlanc and Don Ruch have been conducting plant inventories that relate to sustainability because these measurements will allow estimation of changes in C over time).

### **Community Service and Outreach**

A goal for this topic is the construction of a "green" facility that would allow community groups to participate in educational programs and to conduct tours that demonstrate how to live more in harmony with the environment. We routinely have over 1,000 visitors per year to various properties, primarily Christy Woods and Hults Environmental Learning Center.

## **Implementation**

Note: Because we are in the midst of a master planning process, we do not have information available for this section.