

**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

Department of Natural Resources and Environmental Management  
College of Sciences and Humanities  
Vice-Presidency of Academic Affairs

Submitted to  
Dr. Terry King  
Provost and Vice-President for Academic Affairs

31 January, 2008

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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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> 1. The unit has standing committees to address issues of sustainability.

Y	N	Goal
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> 2. The unit gives assigned load and/or a staff position dedicated to sustainability initiatives.

Y	N	Goal
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 3. The unit has established policies that encourage sustainability initiatives.

These are contained in the department's mission statement.

Y	N	Goal
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 4. The unit has sustainability integrated into its mission statement.

As noted in #3. The full text reads: "The mission of the Natural Resources and Environmental Management Department is to enhance environmental quality and sustainability through holistic, multi-disciplinary teaching, scholarship, and outreach. At scales ranging from local to international, we strive to provide our students and the community with a greater understanding of ethical, scientific, and management principles that facilitate stewardship of resources and protection of the environment."

Y	N	Goal
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 5. The unit maintains active membership in organizations engaged in promoting sustainability.

For professional organizations, memberships by NREM faculty include the International Society for Industrial Ecology, Soil & Water Conservation Society, and Council of Environmental Deans and Directors; memberships in other professional organizations may include emphases on sustainability.

For advocacy/research organizations that promote sustainability, an unknown number of memberships by NREM faculty include at least the following: Union of Concerned Scientists; World Resources Institute; Worldwatch; Natural Resources Defense Council; and Sierra Club.

**Y N Goal**   6. The unit encourages and rewards research related to sustainability.

While not explicitly a component of NREM policy for faculty evaluations, the mission statement lends credence to emphases on sustainability as suitable and encouraged for scholarly activity.

**Y N Goal**   7. The unit encourages and rewards the integration of sustainability issues into course material.

Again, the mission statement provides an access point for sustainability in curriculum. At least 4 courses are aimed explicitly at sustainability (NREM 304 – Sustainable Agriculture; NREM 309 – Human Dimensions of Global Environmental Change; NREM 331 – Energy & Mineral Resources; and NREM 335 – Renewable Energy and Sustainable Technology), while sustainability is incorporated in parts of several other courses.

**Operations****Y N Goal**   1. The unit purchases/uses Energy Star Office and Telecommunications Equipment.

When possible (although not explicitly a part of policy)

**Y N Goal**   2. The unit has policies to restrict paper use.

Only via encouragement to use double-sided printing on the department's copier; we have double-sided printing set as the default mode for printers in our 33-station computer lab.

**Y N Goal**   3. The unit uses recycled paper.

We customarily purchase 30% recycled content paper.

**Y N Goal**   4. The unit recycles all materials accepted by the university system.

This is encouraged in individual offices, and several of our classrooms and lab facilities have recycling bins, as well.

**Y N Goal**   5. The unit has appropriate recycling bins throughout its offices.

See #4, above.

**Y N Goal**   6. The unit has policies that encourage the use of teleconferencing capabilities to limit travel.

Note: We have made use of teleconferencing for some actions, and are looking at doing so while one faculty member is out of country during Spring semester, 2008.

**Y N Goal**   7. The unit specifies hybrid electric vehicles for travel.

Note: Some faculty request hybrid electric vehicles for professional travel.

**Y N Goal**   8. The unit shows preference for sustainable lodging for professional travel.

Note: Some faculty show this preference, but information is not always readily available in advance of travel. Travel allowances sometimes are a barrier.

**Y N Goal**   9. The unit uses washable dinner/service ware for its meetings/receptions.

Sometimes.

**Y N Goal**   10. The unit purchases/uses remanufactured office furniture.**Y N Goal**   11. The unit purchases/uses sustainable materials for office furnishings.

Interface carpeting is used in office spaces and conference room.

**Y N Goal**   12. The unit discourages the use of single-occupant automobile travel.

Note: Most professional travel is by individuals traveling alone. When possible, multiple occupancy is encouraged and logistically arranged.

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

Note: Some classrooms in our control have occupancy sensors; they were removed from one room when we experienced annoying problems related to need for controlling lighting. Sensors for use in offices and restrooms will be investigated during the upcoming year..

**Y N Goal**   14. The unit's thermostats are set to minimize energy use for heating and cooling.

Unknown

### **Curriculum**

**Y N Goal**   1. The unit has courses dedicated to issues related to sustainability.

See Governance and Administration, #7 (above).

**Y N Goal**   2. The unit has courses with sustainability content.

See Governance and Administration, #7 (above).

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

See Governance and Administration, #7 (above). Individual assignments vary across courses and faculty, but at least one lab activity on sustainability is included in the introductory course, NREM 101 – Environment and Society, for which annual enrollment is ~ 600 students.

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

Note: These include: ID 400 – Creating a Sustainable Future; LA 371 – Theories and Practices of Sustainable Site Design; LA 471 – Sustainable Land Systems; PHIL 230 – Environmental Ethics; and others (as available).

**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.

Note: These include: NREM 331 – Energy &amp; Mineral Resources; and NREM 335 – Renewable Energy and Sustainable Technology, NREM 211 – Water Resources, NREM 315 – Water Quality, and NREM 385 – Wastewater Management. There may be others of which we are not aware.

**Research****Y N Goal**   1. Members of the unit have conducted research on issues of sustainability in their discipline.

At least 3 of the NREM faculty have conducted sustainability research.

**Y N Goal**   2. Members of the unit have published on issues of sustainability in their discipline.

At least two NREM faculty members have published on sustainability.

**Y N Goal**   3. Members of the unit attend conferences that address issues of sustainability.

At least 2 NREM faculty members attend sustainability conferences.

**Y N Goal**

**4.** Members of the unit belong to associations dedicated to sustainability issues. See Governance and Administration, #5 (above).

**Y N Goal**  
   **5.** The unit has hosted workshops on issues of sustainability.

Note: We coordinated the annual Green for Green faculty development workshops, 1992-2004, which focused exclusively on sustainability for the last 3 years of the program.

**Y N Goal**  
   **6.** The unit has hosted conferences on issues of sustainability.

### **Community Service and Outreach**

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

At least 4 NREM faculty members have engaged in sustainability-related outreach, specifically involving students in service learning or immersive projects.

**Y N Goal**  
   **2.** The unit is in partnership with others in the community in the pursuit of sustainability.

NREM works closely with the White River Watershed Project, the Living Lightly Festival, and recent efforts through the Bureau of Water Quality and Muncie Sanitary District. There may be other instances.

**Y N Goal**  
   **3.** The unit participates in community events that address issues of sustainability.

Living Lightly Festival and Greening of the Campus conference.

**Y N Goal**  
   **4.** The unit has initiated community endeavors in pursuit of sustainability.

These include a Business Fellows project and immersive learning projects (either involving students within a class or outside of classroom engagement).

## **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 (pick one) Center, Institute, Department, College, Vice-Presidency.

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

#### **Topical Sustainability Lectures**

These are too numerous to list, as most courses in NREM address sustainability in part or in whole during each course.

#### **Topical Sustainability Modules**

No complete inventory is available; sustainability is the primary focus in numerous NREM courses.

#### **Sustainability Courses**

Although other courses may focus in part on sustainability, it is the essential core of NREM 331/531 – Energy & Mineral Resources, NREM 335/535 – Renewable Energy and Sustainable Technology, and NREM 309/509 – Sociopolitical Dimensions of Global Environmental Change.

#### **Sustainability Programs**

n/a

#### **Sustainability Concentrations**

n/a

#### **Sustainability Degree Offerings**

n/a

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

Immersive community engagement is offered in NREM 335/535 and via an ongoing Business Fellows program directed out of NREM. Additional NREM courses contain components of immersive community engagement involving sustainability.



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

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

#### **Professional Academic Organizations**

International Society for Industrial Ecology  
North American Lake Management Society  
Soil and Water Conservation Society

#### **Professional Staff Organizations**

n/a

#### **Student Associations and Clubs**

Students for a Sustainable Campus  
Natural Resources Club

#### **Hybrid Fleet Vehicle Use**

Routinely requested by some NREM faculty for professional travel

#### **Hybrid Electric Shuttle Bus Use**

Information unavailable

#### **Bicycling**

Some NREM faculty report bicycling to/from campus on a regular or frequent basis (weather permitting)

#### **Carpooling**

Information unavailable

#### **MITS Bio-Diesel Bus Use**

Information unavailable

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

At least one NREM faculty member purchases carbon offsets for conference travel (via Terra Pass)

**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**

NREM requested occupancy sensors for 2 of its classrooms; one has since been removed.

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

NREM faculty & staff participate in the campus recycling programs. We routinely recycle printing/copy toner cartridges to a charitable organization, Heads Up! Foundation.

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

n/a

## Goals

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

### **Governance and Administration**

No measures have been considered in this area (to date).

### **Operations**

To the extent possible, adopt and incorporate sustainable practices in the operations of the department, its equipment and facilities.

### **Curriculum**

Routinely offer and further develop new curricular offerings – either whole courses or modules/lectures – emphasizing or addressing sustainability.

### **Research**

Actively engage in scholarly research involving sustainability as one component of the department's overall research agenda

### **Community Service and Outreach**

Actively engage in community outreach involving sustainability as one component of the department's overall community engagement agenda; these efforts will continue to involve immersive learning opportunities for our students, as well as support of community-wide efforts toward sustainability.

## Implementation

We have aligned specific action items with the 5-year cycling of the Strategic Plan and anticipate being able to move forward in the respective categorical areas, as described below.

2008	Action Items	Resource Needs
	<p><b>Governance and Administration</b> n/a</p>	None
	<p><b>Operations</b> Where practical, facilities, equipment, and operations will be undertaken during AY 2007-2008 to reduce their impacts in context of sustainable practices.</p>	Unknown
	<p><b>Curriculum</b> No actions are expected except to continue offering courses, modules, and lectures involving sustainability in the curriculum underway during AY 2007-2008.</p>	None
	<p><b>Research</b> Faculty will continue to be encouraged to adopt research agendas involving sustainability as part of the overall mix of research within NREM.</p>	None
	<p><b>Community Service and Outreach</b> Faculty currently engaged in immersive engagement learning opportunities involving sustainability will be encouraged to continue, and others will be encouraged to consider development proposals for future involvement of sustainability in community service and outreach.</p>	None

2009	Action Items	Resource Needs
	<p><b>Governance and Administration</b>            Consideration will be given to this within faculty meetings during AY 2008-2009</p>	None
	<p><b>Operations</b>            Assessment of facilities, equipment, and operations will be undertaken during AY 2008-2009 to address their impacts in context of sustainable practices.</p>	Unknown
	<p><b>Curriculum</b>            Curriculum involving sustainability will be considered for adoption during AY 2008-2009</p>	None
	<p><b>Research</b>            Faculty will be encouraged to address topics involving sustainability during AY 2008-2009</p>	None (except as suggested by individual research proposals)
	<p><b>Community Service and Outreach</b>            Faculty will be encouraged to address topics involving sustainability during AY 2008-2009</p>	None (except as suggested by individual service/outreach projects)

2010	Action Items	Resource Needs
	<p><b>Governance and Administration</b>            Consideration will be given to this within faculty meetings during AY 2009-2010</p>	None
	<p><b>Operations</b>            Assessment of facilities, equipment, and operations will be undertaken during AY 2009-2010 to address their impacts in context of sustainable practices.</p>	Unknown
	<p><b>Curriculum</b>            Curriculum involving sustainability will be considered for adoption during AY 2009-2010</p>	None
	<p><b>Research</b>            Faculty will be encouraged to address topics involving sustainability during AY 2009-2010</p>	None (except as suggested by individual research proposals)
	<p><b>Community Service and Outreach</b>            Faculty will be encouraged to address topics involving sustainability during AY 2009-2010</p>	None (except as suggested by individual service/outreach projects)

2011	Action Items	Resource Needs
	<p><b>Governance and Administration</b> Consideration will be given to this within faculty meetings during AY 2010-2011</p>	None
	<p><b>Operations</b> Assessment of facilities, equipment, and operations will be undertaken during AY 2010-2011 to address their impacts in context of sustainable practices.</p>	Unknown
	<p><b>Curriculum</b> Curriculum involving sustainability will be considered for adoption during AY 2010-2011</p>	None
	<p><b>Research</b> Faculty will be encouraged to address topics involving sustainability during AY 2010-2011</p>	None (except as suggested by individual research proposals)
	<p><b>Community Service and Outreach</b> Faculty will be encouraged to address topics involving sustainability during AY 2010-2011</p>	None (except as suggested by individual service/outreach projects)

2012 Action Items	Resource Needs
<p><b>Governance and Administration</b> Consideration will be given to this within faculty meetings during AY 2011-2012</p>	None
<p><b>Operations</b> Assessment of facilities, equipment, and operations will be undertaken during AY 2011-2012 to address their impacts in context of sustainable practices.</p>	Unknown
<p><b>Curriculum</b> Curriculum involving sustainability will be considered for adoption during AY 2011-2012</p>	None
<p><b>Research</b> Faculty will be encouraged to address topics involving sustainability during AY 2011-2012</p>	None (except as suggested by individual research proposals)
<p><b>Community Service and Outreach</b> Faculty will be encouraged to address topics involving sustainability during AY 2011-2012</p>	None (except as suggested by individual service/outreach projects)