Earlham College
Comprehensive Sustainability Plan

Updated for 2013
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Introduction
In the Fall of 2011, President David Dawson charged the Environmental Responsibility Committee with developing a new comprehensive sustainability plan for the college. In the charge, President Dawson noted:

The newly charged committee will have the full weight and support of the College behind it as it follows its new charge. I will ask the committee to consult broadly, act transparently, and develop a new plan for the community to consider by the end of the 2011-2012 academic year.

What follows is a draft of that plan. In this plan, we (ERC) have detailed recommendations and suggestions to provide a sense of the scope and consequences of adopting this plan at the institutional level. Recommendations have a stronger weight to them than suggestions. It is expected that if the plan is approved by the Senior Staff of the college, recommendations will be seen as “directives” to the office or college area charged with implementation. Suggestions are included for further deliberation and/or development and do not have the responsibility of direct implementation.

Process and Acknowledgements
The Environmental Responsibility Committee spent the 2011-2012 academic year in community consultation to create this document. Meetings were held with divisions, with administrative faculty and staff members, and with the student senate. Several open community meetings were also held. In addition, a community survey was implemented with the helpful assistance of the Earlham Environmental Action Coalition student group. Finally the framework for the current process and a draft plan was discussed twice in faculty meeting and with the student senate. It is estimated that the input of hundreds of campus community members was included in the process of writing this plan.
The work of the members of the Environmental Responsibility Committee in creating this plan has been tremendous. The members of the committee from 2011-2012 are: Daniel Vargas Cambronero, Bobbi Cayard-Roberts, James Farmer, Kalani Seu, Jay Roberts (Convener), Jana Schroeder, Ian Smith, Donna Sykes, Sarah Waddle, Judy Wojcik.

Assessing Sustainability
The assessment of sustainability on college campuses is a very new phenomenon. For the past 4-5 years, Earlham has voluntarily participated in several campus sustainability surveys administered by various groups (e.g. Sierra Club, Sustainable Endowments Institute, Princeton Review). Four years ago, a new assessment tool was created by the Association for the Advancement of Sustainability in Higher Education called STARS (Sustainability Tracking, Assessment, and Rating System). Earlham was a charter member of this new system and one of the first 5 schools to complete the assessment in 2009. Since that time both the Sierra Club and the Sustainable Endowment programs have elected to close their assessment system and utilize STARS. It is very clear to ERC that STARS is now the widely accepted industry standard for assessing sustainability in higher education. It is for this reason that the committee has drawn extensively on the
Comprehensive Sustainability Plan

STARS framework and categories in designing our comprehensive plan. The plan’s recommendations have emerged from careful consideration of best practices in sustainability coordination, curriculum, operations and community across higher education and the STARS rating system.

Statement on Sustainability
Defining sustainability can be difficult. While there is a popular consensus on the basic elements of a definition, its value-laden orientation makes sustainability the subject of on-going debate and disagreement. Earlham orients its sustainability work around the following general definition:

“Sustainability is the continuous effort to meet the needs of the present generation without compromising the ability of future generations to meet their needs by working toward a healthy environment, social justice, and a strong economy.”

While definitions are important, they can also be unnecessarily limiting if we focus too much on trying to achieve perfect clarity. In this sense, sustainability at Earlham is not fixed and static but will be an ever-changing orientation to the question of “how we should best live” both on-campus and in our wider social and ecological communities of interest and influence.

Many view sustainability planning as an operational “to do” list including technical elements such as recycling, energy conservation, and waste minimization. While these areas are important and must be included in any plan, we see these elements as “necessary but not sufficient” for a full flourishing of what sustainability means on our campus.

Guided by our principles and practices of respect for persons, integrity, simplicity, peace and justice, and community, Earlham’s sustainability plan moves beyond technical “to do’s” to a integrated and comprehensive approach to sustainability that links together social, ecological, and economic spheres of life in a context explicitly framed by our educational mission.

As such, sustainability at Earlham will be:

1. Visible
2. Educational
3. Effective

An organizing vision for sustainability at Earlham is the idea of “everyday sustainability.” Earlham’s approach will infuse sustainability across all areas of the College; it will be regularly experienced by all members of the community; and it will include both highly visible (and perhaps symbolic) projects alongside specific, measurable, and accountable resource conservation initiatives. Woven throughout all our initiatives and processes will be the commitment to making sustainability educational. Making our campus carbon
neutral through technical means may be feasible, but it would not be the right thing to do if such initiatives remain virtually invisible to the community. Countless opportunities exist to involve students, faculty, staff, alumni, and trustees in sustainability initiatives on campus. Many sustainability–related efforts will require careful deliberation and reasonable debate in which community members may disagree over priorities and best courses of action. To the extent that we make these interactions educative, we have fulfilled the central mission of the college.

**Financial Implications and Prioritization**
Each of the four sections of the plan includes a strategic priority, highlighted at the beginning of the section. Additionally, for each recommendation that has potential monetary cost implications for the college, those implications have been laid out within the plan and have also been summarized in tables at the end of the plan (pages 31–32). While it is important to grasp the cost implications of sustainability initiatives, it is also imperative to see the potential savings to the college of investing in energy savings and the potential synergistic gains to be had from focusing resources on sustainability.
Section 1: Coordination

Introduction
Coordination covers how to coordinate, plan, track, and measure sustainability at Earlham as well as sustainability as it pertains to college investments.

Areas Addressed:
- Coordination
- Sustainability Plan
- Climate Action Plan
- Tracking & Measurement
- Investment

Strategic Priority:
Secure hard funding for a college Sustainability Coordinator and a yearly operating budget for the Center for Environmental Action.

a. Coordination

Current Practice: Earlham has an Environmental Responsibility Committee (ERC) that was charged in 2011 with drafting a comprehensive college sustainability plan. The committee is made up of two students, two staff, two administrative faculty, two teaching faculty, the facilities director and directors of the Center for Environmental Action (CEA). The CEA assistant director, a recent Earlham graduate, currently serves as college Sustainability Coordinator and is paid $30000 per year through grant funds (total cost to the college is ~$39840 including benefits).

Recommendations:

1.1 Coordinator: In order to fully implement the college’s sustainability plan, the college will hire a Sustainability Coordinator. The Sustainability Coordinator will help guide the college in the implementation of the sustainability plan and coordinate sustainability efforts across campus.

$ Financial Implications: Based on the 2010 AASHE Higher Education Sustainability Staffing Survey, the average salary for Sustainability Coordinators at Baccalaureate Colleges is $43,714 per year. Benefits cost an average of 30% of the typical employee salary, thus a Sustainability Coordinator will cost in total approximately $56828/year.

1.2 Coordination Structure: The Sustainability Coordinator will be supervised by the Director of the CEA and will work cooperatively across campus with the Facilities Director, the VP for Finance and Operations, and the Sustainability Advisory Committee. The CEA will be given an operating budget sufficient to implement sustainability projects.

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1 The 2010 AASHE Higher Education Sustainability Staffing Survey may be downloaded here:
$\$ \textbf{Financial Implications:} The 2012-2013 grant-funded operating budget of the CEA totaled $83,181. An operating budget near this amount would be needed to sufficiently coordinate college sustainability efforts via interns, events, mini-grants to faculty and students and day to day operations.

1.3 \textbf{Sustainability Advisory Committee:} The Sustainability Coordinator will work with and be an ex-officio member of a Sustainability Advisory Committee (SAC). This committee will replace the existing Environmental Responsibility Committee and will consist of two teaching faculty, two students, two staff, and two administrative faculty with ex-officio members including CEA director, Sustainability Coordinator, Facilities Director, head of food service, associate dean of Student Development, and the VP for Finance and Operations. SAC will be charged with assisting the Sustainability Coordinator in determining college sustainability priorities using the sustainability plan for guidance, tracking progress on the sustainability plan, and leading sustainability planning processes in the future. The workload of this committee is significantly reduced by having a Sustainability Coordinator working on the day-to-day operational side of sustainability at Earlham.

\textbf{Responsible Office(s):} Office of the President, Senior Staff, Nominating Committee, CEA, VP for Finance and Operations, Associate Dean of Student Development, Director of Facilities, Director of Food Service, SAC

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2 Budget records of the CEA are available upon request. Please contact srwaddle08@earlham.edu for access.

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b. Sustainability Plan

Current Practice: Earlham currently has no college-approved comprehensive sustainability plan. An “environmental plan” was drafted and approved by the Board in 2004. ERC (now the Sustainability Advisory Committee) was charged with, and successfully drafted a comprehensive sustainability plan in the 2011-2012 academic year.

Recommendations:

1.4 The Sustainability Coordinator and SAC will report progress to the community on the sustainability plan every 3 years. When the sustainability plan is updated the Climate Action Plan should also be reviewed and updated (see Climate Action Plan section). A goal of the Sustainability Coordinator will be to expand the sustainability plan to incorporate department level sustainability planning.

Responsible Office(s): Office of the President, Sustainability Coordinator, SAC

c. Climate Action Plan

Current Practice: Earlham currently has no Climate Action Plan. As part of overall sustainability planning at the college, a Climate Action Plan will be written in the 2012-2013 academic year. This plan will be specific, data driven and involve measurable goals towards the reduction of the college’s impact on the climate.

Recommendations:

1.5 The Sustainability Coordinator and SAC will review and update the Climate Action Plan every 3 years along with the sustainability plan.

Responsible Office(s): Office of the President, Sustainability Coordinator, SAC

d. Tracking & Measurement

Current Practice: Earlham completed a greenhouse gas inventory in 2009 and participates in the Association for the Advancement of Sustainability in Higher Education’s Sustainability Tracking and Rating System (AASHE STARS). These initiatives have thus far been undertaken by students in classes and through independent studies.

Recommendations:

1.6 Sustainability assessment and tracking will become the responsibility of the Sustainability Coordinator. Earlham will publicize this data and continue to assess and evaluate itself using STARS or the current best practice in higher education sustainability assessment and tracking. Sustainability assessment and tracking information will be collected in conjunction with a number of college offices and with the help of various faculty, students and staff. The Sustainability Coordinator will submit data to STARS for a rating every three years or whenever a higher rating is projected to be achieved.
Responsible Office(s): Office of the President, Sustainability Coordinator

e. Investment

Current Practice: Earlham has a Socially Responsible Investment Advisory Committee that monitors investment of directly held stocks (approximately 13% of total endowment) for compliance with our Socially Responsible Investment Policy. The college also has a socially responsible investing policy that can be found here: www.earlham.edu/policies-and-handbooks/general/socially-responsible-endowment-investments-policy-for-earlham-college-and-the-earlham-foundation/. In the “Criteria Related to Improving Human Society” section, it states:

Because Earlham believes that certain behaviors are contrary to the desired order for which Friends have historically worked and witnessed, the behavior of certain companies is deemed to be outside the range of those companies in which Earlham desires to invest and derive profit. For these reasons, Earlham seeks to minimize investing in the securities of companies whose overall behavior results in irresponsible use of the natural environment and/or denigrates the dignity of individuals.

Recommendations:

1.7 Using STARS investment guidelines as an example framework, SRIAC will develop a more specific investment statement on sustainability in the “Criteria Related to Improving Human Society” section of the College’s Socially Responsible Investment policy (see above). The policy must include measurement and accountability tools. The policy should be written by SRIAC in consultation with SAC and be approved by the Board of Trustees.

1.8 The college will make its investment disclosure statements more transparent to the college and community. SRIAC will assess current transparency and will improve on this in the 2013-2014 academic year. SRIAC will report progress on investment transparency to SAC by June 2014.

Suggestion:
SRIAC will work with the Center for Environmental Action and the office for Institutional Advancement towards developing a student managed investment portfolio.

Responsible Office(s): College Chief Financial Officer, SRIAC, SAC, Investment Officer, Board of Trustees.
Section 2: Curriculum

Introduction
Sustainability efforts intersect with the curriculum in the ways in which students and faculty are engaged with sustainability-focused and related topics and coursework within the formal curriculum at Earlham. While the sustainability plan cannot and will not dictate curricular choices to the faculty, it is important to note the ways in which we currently deal with sustainability within the formal curriculum and consider ways we might amplify the presence of these values, topics, and themes across the curriculum.

In terms of curriculum, there are three major domains of interest:

1. Sustainability-related or focused majors and minors
2. Sustainability-related or focused courses across the curriculum
3. Sustainability-related or focused research (both faculty and student-faculty)

Areas Addressed:
- a. Definition
- b. Inventory of Sustainability Curriculum
- c. Across The Curriculum
- d. General Education
- e. Degree programs
- f. Immersion Programs
- g. Literacy
- h. Research

Strategic Priority
The college will position itself as an innovator in its sustainability curriculum by encouraging and funding faculty-student research on sustainability and creating FTE lines in Environmental Studies and Science.

a. Definition
Current Practice: Earlham doesn’t have an institutional definition of sustainability that will allow us to inventory our current course offerings. This is a scored component of the STARS review process.

Recommendations:
2.1 Earlham College adopts the following general definition and the subsequent course specific definitions:

“Sustainability is the continuous effort to meet the needs of the present generation without compromising the ability of future generations to meet their needs by working toward a healthy environment, social justice, and a strong economy.”
• Sustainability-focused courses concentrate on the concept of sustainability, including its social, economic, and environmental dimensions, or examine an issue or topic using sustainability as a lens.
• Sustainability-related courses incorporate sustainability as a distinct course component or module, or concentrate on a single sustainability principle or issue.

b. Inventory of Sustainability Curriculum

Current Practice: Earlham offers courses that are sustainability focused as well as related but these are not systematically tracked or inventoried.

Recommendations:

2. Inventory of all courses categorized as focused or related by department will be undertaken by the Center for Environmental Action at least once every three years and will be publicly posted on the Earlham College sustainability website.

Responsible Office(s): Office of the Registrar and/or Sustainability Coordinator

c. Across The Curriculum

Current Practice: The Center for Environmental Action, through a grant from the Mellon Foundation, has a SEED (Sustainability and Environmental Education Development) mini-grant program to encourage faculty development of sustainability curricula. However, this is a soft-funded initiative with a 3-year life cycle. While sustainability-focused and related courses currently exist across the curriculum, Earlham does not currently officially promote or incentivize such efforts for faculty nor does the college present a coherent picture of sustainability courses to current and prospective students.

Suggestions:

1. Continue current efforts through the CEA to promote and encourage sustainability across the curriculum efforts through faculty development and mini-grant initiatives.

   $ Financial Implications: Dedicated funding as part of CEA hard funded budget (see recommendation 1.2). Soft funding for mini-grants in 2012-2013 totaled $27150, soft funding for faculty development initiatives totaled $12500.

2. For scheduling and reference purposes, implement a sustainability symbol next to sustainability courses that can be easily identifiable to current and prospective students on the web and in print materials.

3. Work with the success and popularity of the Penziner-Matson natural history field trips to amplify field-based experiential study and examine ways it might connect with sustainability initiatives through the CEA.

Responsible Office(s): Office of the Registrar, CEA, Biology, Geology, Environmental Studies, Environmental Science, Outdoor Education program.

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d. Sustainability and General Education  
**Current Practice:** Earlham currently does not have a general education requirement for sustainability.

**Suggestion:**
1. Use the current AWPE Structure to amplify more opportunities for practical skill development in experiential sustainability (outdoor education courses, farm/agriculture courses, etc.).

**Responsible Office(s):** CEA

d. Degree programs  
**Current Practice:** Earlham currently offers a major and minor in both Environmental Studies and Environmental Science. The college does not offer a major or minor in sustainability or other forms such as certificate programs or concentrations.

**Recommendations:**
2. Continue commitment to adding FTE’s in Environmental Science and Environmental Studies as a College priority as indicated by the current Curriculum Visioning Statement.
   
   § Financial Implications: The costs associated with increased FTE faculty lines are large and are considered part of the expense of growing the college (as called for in the 2012 Strategic Plan).

**Responsible Office(s):** Curriculum Steering Committee

e. Immersion Programs  
**Current Practice:** Earlham currently offers an off-campus semester program in New Zealand focused specifically on environmental studies. In addition, several other off-campus semester programs (notably Tanzania and Border Studies) incorporate significant sustainability-related coursework and experiences. Several May terms are also offered with environmental and sustainability-focused themes. There are currently no on-campus “immersion semester” experience offerings.

**Suggestion:**
1. Consider models that would provide for an on-campus immersion experience option focused, perhaps, with Miller Farm and sustainable agriculture or in cooperation with Cope Environmental Center (see Penn State University model).

**Responsible Office(s):** CEA.

f. Literacy  
**Current Practice:** Earlham does not currently have a program that deals with sustainability literacy. Elements within our general education curriculum may touch on sustainability issues but it is not an explicit feature of any general education goal.
Suggestions:
1. Generate a document that details learning outcomes involved in sustainability literacy.
2. Create an assessment protocol to track sustainability literacy from 1st year to graduation. This could be done by adding questions to the NSSE survey and/or creating a pre/post survey measure from 1st year to graduation.

Responsible Office(s): Assessment Committee, Office of Institutional Research, and/or Sustainability Coordinator.

g. Research
Current Practice: Earlham currently works to promote sustainability research through the SEED and SAR mini-grants funded by the Mellon Foundation and administered by the CEA. This support is not hard-wired into the budget, however, and will expire when the grant expires. Opportunities might also exist to work with Ford-Knight funds to promote more sustainability-related student-faculty collaborative research.

Recommendations:
2.4 The College continue to fund faculty and faculty-student research in sustainability beyond the life of the Mellon Grant through a “Dean’s Sustainability Fund” that would provide support for research initiatives.

Financial Implications: Such a fund would require at least $10000 per year to be significant and effective. Current grant funding for faculty and student research totaled $27150 in 2012-2013.

Responsible Office(s): CEA (Mellon grant), Office of the Academic Dean.
Section 3: Community

Introduction
For the purposes of the sustainability plan, the “Community” section captures many aspects of campus life and the co-curriculum including residence halls, relationships with Richmond, and human resources, among others.

Areas Addressed:
- a. New Student Week
- b. Campus Gardens and Agriculture
- c. Alumni
- d. Sustainability Publications
- e. Diversity
- f. Human Resources
- g. Peer Educators Program
- h. Living and Learning Residences
- i. Outreach Campaigns
- j. Student Clubs
- k. Public Engagement
- l. Revolving Loan Fund

Strategic Priorities
Infuse sustainability across the Earlham experience through NSO, peer education, alumni networking, and public engagement. Support student leadership around sustainability in the co-curriculum by funding a Sustainability Revolving Loan Fund, campus gardens and Miller Farm.

a. New Student Week
Current Practice: Earlham does not currently have a prescribed sustainability program as part of New Student Week although there have been several ad-hoc sustainability presentations and initiatives in recent years.

Recommendations:
- 3.1 Create a volunteer “NSO Sustainability Team” of sophomores, juniors, and seniors drawn from the sustainability peer educators (see below) who will be a visible presence on move-in day and present information and assistance for students and parents about energy reduction strategies for the dorm room, waste minimization tips, and other sustainability related information.

- 3.2 Have a more formal program/presentation during NSO week about sustainability and our commitments and expectations related to various campus behaviors and practices (recycling, composting, energy use, etc.)

Responsible Office(s): Student Development, New Student Week Committee; Sustainability Coordinator.
b. Campus Gardens and Agriculture

Current Practice: Earlham does not currently have on-campus gardens focused on sustainability education. Miller Farm is an off-campus student house with a small garden and animal husbandry program that supports student farmer learning and campus wide programming in the form of Farm Day (work days) as well as summer programming for local children on farm education. Miller Farm is a living and learning community with a faculty advisor. Currently the farm is funded through student activity fees and produce sales at around $3000/year.

Recommendations:

3.3 Amplify Miller Farm’s visibility as a sustainability initiative at Earlham. In doing so, create a Community Collaboration and Engagement fund for Miller Farm to use in creating partnerships with area farmers for consultation and farm improvement. Fund the summer programming at the farm and provide a minimum yearly operating budget for animal care, gardening and farm improvements, and a separate Living Learning Enrichment fund for conference travel and special enrichment activities at Miller Farm.

$ Financial Implications:
Yearly Community Collaboration and Engagement fund: ~ $10000, Summer interns (2 full time)~$10000, Basic yearly operating budget (not swept at end of each year)~ $5000, Living Learning Enrichment Fund~ $2000, Total: $27000 per year

3.4 Locate several smaller garden plots in central locations on campus to produce food as well as provide visible evidence of sustainability values and opportunities for sustainability education. $21,100 has been allocated to this endeavor through the Mellon Grant. Student coordinators will work alongside the campus landscape designer to maintain gardens over time.

$ Financial Implications:
2 student garden maintenance coordinators at 10 hrs/week year round~ $7540.

3.5 Using the upcoming Campus Master Planning process, coordinate with existing offices and departments on in-process garden projects and ideas (Joseph Moore Museum, Biology, Japan Study, Environmental Studies, Environmental Science, CEA).

Responsible Office(s): CEA, Biology, Japan Study, Environmental Studies, Environmental Science, Facilities

c. Alumni

Current Practice: Earlham currently does not have a network of Alumni focused on sustainability or environmental themes. Earlham does not have a visible sustainability ethic when putting on alumni events either on or off-campus.
Recommendations:

3.6 Earlham establish a “Green Alumni Network” to link alumni with sustainability initiatives on campus. This network would also work in concert with the environmental studies and science majors and career services to better connect current students with sustainability-related careers and futures.

3.7 Alumni Development will establish sustainability guidelines for major alumni events and communication efforts focused on the use of food, resource and waste minimization, and alumni education related to Earlham sustainability efforts and values.

Responsible Office(s): Alumni Development, Career Services, and the Sustainability Coordinator.

d. Sustainability Publications

Current Practice: Information and publications about environmental action and sustainability at Earlham includes the following.

- The Center for Environmental Action (http://www.earlham.edu/center-environmental-action) has an up-to-date website focusing on teaching and learning with a sub-section on sustainability.
- Earlham also has printed brochures and posters on recycling and sustainability that are in need of updating.
- There is a newly created brochure developed by the CEA with a campus map and information for a green tour of campus.
- The Earlham Word student newspaper has run a column on sustainability, “The Green Beat,” for the past two years.

Recommendations:

3.8 Raise the visibility of Earlham’s sustainability commitment and actions on the Earlham website. Consolidate, update and maintain a comprehensive set of sustainability resources on the Earlham website with information relating to all four areas addressed in this plan. Encourage relevant pages on the Earlham website to link to these resources.

3.9 Employ student interns, under the direction of the Sustainability Coordinator or CEA staff, who would be responsible for regularly updating all sustainability related web pages and publications in coordination with Public Affairs.

   $ Financial Implications: Student interns will be part of the CEA budget. Publicity interns will cost ~$2500/year.

3.10 Update printed informational materials on topics such as recycling and energy conservation for distribution to departments and posting.

   $ Financial Implications: Publication expenses will be part of the CEA budget. Publications will cost ~$1000/year.
3.11 Create new or improved signage to educate Earlham community members and visitors about sustainable features of buildings and landscaping and on expected practices (such as composting, turning off lights, etc.). Signage will fulfill standards for LEED certification.

Financial Implications: Signage expenses will be part of the CEA budget. Signage budget will be ~$2000/year.

Responsible Office(s): Public Affairs, Earlham web team, the CEA, facilities director, and the Sustainability Coordinator.

e. Diversity

Current Practice: Earlham has a longstanding commitment to creating a diverse, inclusive community that is reinforced within our mission statement. The college adopted a Diversity Aspirations Vision Statement in 2002. An annual Diversity Progress Report is produced by the Diversity progress committee.

Earlham’s General Education requirements include taking one course that has been designated as fulfilling domestic diversity criteria and one that meets international diversity criteria. The Office of Multicultural Affairs convenes the Diversity council which includes student and faculty representatives and which plans campus-wide events and provides input on initiatives related to diversity. Because Earlham has not had a definition of sustainability, there has not been explicit exploration of how the various areas encompassed by the definition adopted under this plan might work together and support one another’s aims.

Suggestion:
1. Explore ways that environmental, diversity and social justice efforts can take into account, support and strengthen one another in the curriculum, co-curriculum and Earlham community.
2. Director of Multicultural Affairs and Sustainability Coordinator convene at least once each semester to identify key intersections and action steps in their respective positions to amplify each other’s work. Strive to interface the work of the CEA and the currently being written Diversity Plan.

Responsible Office(s): Environmental Responsibility Committee or its successor body, Sustainability Coordinator, Diversity Progress Committee, Diversity Council, multicultural affairs director

f. Human Resources

Current Practice: The CEA is piloting a voluntary Green office program that involves a self-audit of current practices and a consultation with suggestions of other things the office could do to act more sustainably. There is currently no systematic inclusion of sustainability in employee orientation or professional development.

Recommendations:
3.12 Include information about Earlham’s commitment to sustainability and practical information on resources available to facilitate personal and office sustainability to all new employees (faculty and staff) during orientation.

3.13 Continue and expand the Green Office program currently managed by the CEA. Offer professional development and education related to sustainability at least twice a year at departmental and Employee Council meetings or via informational emails at least twice a year.

Suggestion:
1. Consider forming a voluntary staff/faculty “Sustainability Team” similar to the student Sustainability Peer Educators with one or two members per classroom/office building. These folks would be identified as go-to people for questions about sustainability practices. They would have access to additional resources and would commit to familiarizing themselves with the where, what and who of sustainability at Earlham.

Responsible Office(s): HR director/business office, Employee Council, office of the Academic Dean (for new faculty orientation), departmental chairs, CEA

g. Peer Educators Program

Current practice: Although there are sustainability-related student groups who do many outreach efforts, we do not currently have officially designated students to serve as point-people for fellow students on campus.

Recommendations:
3.14 To select, train, and support at least 2 officially designated Student Sustainability Peer Educators per residence hall and 2 for all the campus houses.

$ Financial Implications: Peer education student coordinator at 15 hours/week ~ $3500/year. Peer education operating budget ~ $3000 per year

Suggestion:
1. Aside from being in advisory role to other students, Peer Educators will have concrete assignments, possibly coordinating the sustainability portion of New Student Orientation, various outreach campaigns throughout the semester, overseeing the Move-Out Waste Reduction, sending out a "Green Packing List” prior to students' arrival on campus, etc.

Responsible Office(s): Residence Life, Sustainability Coordinator, CEA

h. Living and Learning Residences

Current Practice: Earlham currently has three environmentally-oriented residential living options—Foster/Outdoor Education House, Miller Farm, and Gurney/Environmental House. Two living and learning residential living arrangements for First Years are planned for the Fall of 2012 with environmental themes—the Sustainable Science Living
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and Learning Hall and the Environmental Semester Living and Learning Hall. These are pilot projects currently planned only for the 2012-2013 academic year.

Recommendations:

3.15 Explore the “living and learning” theme hall model as a permanent option including various themes (“sustainability,” “food,” “public health” etc.).

Responsible Office(s): Residence Life, Student Development, CEA, Office of Academic Dean

i. Outreach Campaigns

Current practice: Although there have been numerous sustainability campaigns on campus, mainly geared to students, there has been little to no coordination in determining the goals and opportunities for collaboration in campaigns. Campaigns have been led by the Center for Environmental Action and Earlham Environmental Action Coalition.

Recommendations:

3.16 Implement at least 1 campaign per year that results in measurable reduction around water, electricity, waste, fuel, etc.).

Financial Implications: Designated line of operating budget of CEA for outreach campaigns will require ~$1000/year.

Responsible Office(s): The Sustainability Coordinator, CEA.

j. Student Sustainability Group

Current practice: There is one main student group focused on environmentalism: the Earlham Environmental Action Coalition. The club is convened by two students and has one faculty advisor. EEAC has provided opportunities for its members to attend regional college sustainability conferences and protests, while also leading campaigns on campus. There is another group, the Interfaith Sustainability Challenge, initiated with support from the office of Religious Life.

Recommendations:

3.17 Continue supporting student sustainability groups by providing increased coordination and good faculty advising

Responsible Office(s): EEAC faculty advisor, CEA

k. Public Engagement

Current practice: Earlham has a long history of engagement with the surrounding community including longstanding programs such as the Earlham Volunteer Exchange, the Bonner Scholars Program, and Amigos. Other student groups have ongoing or short-term relationships with community groups such as Black Ladies United at Earlham (BLUE) and Black men United (BMU) which each have members who mentor youth at the Townsend Community Center. Some faculty members incorporate service learning
and community-based research into their courses. In addition, Earlham has a vice president for community relations who works with local government and business to help promote the local community’s well-being.

Due to staffing changes and lack of institutionalization, there is not a reliable method in place for determining the number of service hours completed by students each year.

Recommendations:

3.18 Develop a statistically valid method for estimating the number of service hours and number of students engaged in service each year.

3.19 Encourage more faculty to incorporate community-based learning experiences into their courses by including involvement in this type of research and teaching in criteria considered for tenure and promotion and offering seminars, mini grant and other professional development opportunities to those developing such units for existing or new courses.

3.20 Form strategic partnerships with local government, business, non-profits and/educational institutions to assist with community capacity-building for sustainability.

Responsible Office(s): Bonner Center for Service and Vocation, Institutional Research, Academic Dean, Vice President for Community Relations, CEA

I. Revolving Loan Fund

Current practice: Earlham currently does not have a revolving green loan fund program.

From an Earlham College policy brief written in POLS 300:

The concept of a revolving loan fund (RLF) is simple. A fund is created with sufficient capital to fund clean energy projects … Ideas for projects that would create financial savings for the college are submitted to an RFL administrative body and reviewed… Projects funded by the RLF must be projected to generate saving through reduced energy use of alternative energy use that are equivalent to the capital needed to implement the project within 5–10 years. The savings accrued by the project are paid back to the fund and are then used to fund future projects.

Recommendations:

3.21 Develop a Revolving Loan Fund program for sustainability initiatives on campus. Include strong student participation and leadership into the management of this program to increase student ownership and accountability of the college’s energy conservation strategies. Work with Institutional Advancement, SRIAC, Student Government, EEAC, and relevant college administrators for design and implementation of the program.

$ Financial Implications: Start-up funding needed ~$30000, fund will be self-sustaining and will grow over time.

Responsible Office(s): VP for Finance and Operations, Sustainability Coordinator

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Section 4: Operations

Introduction
The operations section focuses upon reducing the college’s resource consumption, and improving our understanding of both the college’s supply chains and waste streams necessitated by consumption patterns. Despite the mostly technical nature of the operations areas, the most profound and lasting impact from these plan elements will only be realized if co-curricular learning opportunities are integrated into their accomplishment. It would be a mistake to implement technically outstanding solutions in ways that are virtually invisible to the general campus population. The operational side of sustainability is integral to sustainability education at Earlham.

Areas Addressed:
Buildings
Climate
Dining Services
Energy
Grounds
Purchasing
Transportation
Waste
Water

Strategic Priority
Implement sub-metering of electricity, heating/cooling, and water usage in all campus buildings and enter into an Energy Services Performance Contract or equivalent contractual vehicle in the next two years. Implement mechanisms by which savings accrued in excess of debt service on the energy savings contract are used to fund other operational sustainability priorities.

a. Buildings
Current Practice: Earlham currently has no policy related to LEED requirements for new buildings or renovations of existing buildings. The planned Natural Sciences, Visual & Performing Arts, and Tyler Hall projects will all meet at least USGBC LEED silver level of certification. The Phase 2 Natural Sciences project will meet at least USGBC LEED gold certification.

Recommendations:
4.1 Design and construct all new buildings or major renovations in accordance with USGBC LEED requirements, to at least a Silver level of certification.

Financial Implications: There is cost associated with LEED certification, typically up to 10-15% higher up front costs, however increased costs up front are recouped in efficiency savings and lower operating costs over the building’s lifespan.3

3 From the USGBC website: “An upfront investment of 2% in green building design, on average, results in life cycle savings of 20% of the total construction costs – more than ten times the initial investment.” new.usgbc.org/articles/business-case-green-building

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4.2 Indoor Air Quality - adopt an indoor air quality management policy, plan, and/or practices that include regular auditing or monitoring and a mechanism for occupants to register complaints.

Financial Implications: Some operational costs will be associated with such a policy, however they will be relatively low and cannot be estimated until the specifics of the policy are in place.

Suggestions:
1. Implement U.S. Green Building Council's LEED Existing Building Operations & Maintenance or equivalent standards.

Responsible Office(s): Capital construction office, facilities department, maintenance & grounds department, business office, Sustainability Coordinator.

b. Climate

Current Practice: Earlham currently does not have a Climate Action Plan that makes a commitment toward specific greenhouse gas emissions reductions by targeted dates. We are signatories of the Talloires agreement (2006) but have not signed the American College and University Presidents’ Climate Commitment (ACUPCC). Earlham completed an inventory of greenhouse gas emissions in 2009. We also recently began a reforestation carbon sequestration plot south of the football field.

Recommendations:
4.3 Develop a Climate Action Plan to reduce Earlham’s greenhouse gas emissions that is economically sustainable for the college to legitimately pursue.

Financial Implications: The Climate Action Plan will detail its cost implications.

Suggestions:
1. Consider signing the ACUPCC.

Responsible Office(s): President’s Office, VP for Finance and Operations, Facilities Director, Sustainability Coordinator.

c. Dining Services

Current Practice: Earlham College currently practices trayless dining, has vegan options, composts pre-consumer food wastes, utilizes recycled content napkins, uses compostable dining ware and has receptacles for post-consumer food wastes. The food services contractor also makes re-usable containers available for dining hall users, has a reusable mug program, and encourages the use of personal glassware in the dining hall. Students and alumni are involved with the Real Food Challenge organization and its goals of increasing local, sustainable, humane, and fair foods in dining services. Dining services (Sodexo) currently purchases local foods where possible and would like to increase their commitment to sustainable food options.
Recommendations:

4.4 Publicly commit the college to the Real Food Challenge by having President David Dawson sign the Real Food Campus Commitment in the spring of 2013. The Commitment will include the goals described in recommendations 4.5-4.9.

Financial Implications: Costs of increased local food purchasing will be negotiated with food services contractor. In the next contract renewal cycle, the request for proposals to food service contractors must include stipulations on the college’s goals in regards to Real Food.

4.5 Commit to annually increasing procurement of ‘real food’- defined as local/community-based, fair, ecologically sound, and/or humane by the Real Food Calculator- so as to meet or exceed 30% of food purchases by 2020.

4.6 Commit to establishing a transparent reporting system, including the Real Food Calculator, to assess food procurement and commit to compiling these assessment results in an annual progress report.

4.7 Commit to forming a food systems working group, led by students and including staff, faculty, food service managers, food service workers and relevant local stakeholders that will be responsible for developing and coordinating the implementation of an official real food policy and multi-year action plan.

4.8 Commit to making the real food policy, multi-year action plan, and annual progress reports publicly available online and through the Real Food Challenge.

4.9 Commit to increasing awareness about ecologically sustainable, humane, and socially equitable food systems on campus through co-curricular activities, cafeteria-based education, and other appropriate means.

Responsible Office(s): Sustainability Coordinator and Food Service Contractor

d. Energy

Current Practice: Earlham College currently uses a central, computer controlled energy management system for some buildings, with the remaining buildings’ climate control managed by traditional, stand-alone thermostats.

No building on campus is currently monitored for all utilities (water, electricity, heat, cooling). Real-time electricity consumption monitoring has recently been installed for most of the dormitories.

Recommendations:

4.10 Pursue a substantial (30% to 50%) reduction in building energy consumption (2005 baseline). This will be achieved via an energy services performance contract or equivalent contractual vehicle, resulting in a budget-neutral or better financial projection for the duration of a short-term (5 to 7 year) loan to pay for...
the project, with the college receiving the full financial benefit of the resultant savings once the loan is paid in full.

Financial Implications: Associated costs up front, but cost neutral or substantially better in the short term and long term. Possible financing options for this contract include bonds, endowment draws, and loans. The contract signed would require debt service payments from the energy savings to equal or be greater than the interest and principle payments.

4.11 Develop, use, and/or purchase clean and renewable energy where economically and technically feasible in order to meet the goals of the Climate Action Plan. Renewable energy sources likely to be considered could include solar electricity and hot water generation, or geothermal heating and cooling. 

Financial Implications: See Climate Action Plan

4.12 Implement building level monitoring of utilities including electricity, heating/cooling, and water consumption for all buildings on campus. Use monitoring to increase education and behavior change around resource use on campus.

Financial Implications:
A project of this scale will cost $400000-$500000\(^4\). It will indirectly lead to cost savings through the capabilities it provides for behavior change and increased accuracy in controlling buildings and implementing efficiency upgrades.

Responsible Office(s): Director of Facilities, VP for Finance and Operations, and the Sustainability coordinator.

e. Grounds

Current Practice:
We currently do not have any policies related to sustainability and grounds.

Recommendations:

4.13 Develop an Integrated Pest Management (IPM) program - This approach promotes the health of human and non-pest wildlife while enabling institutions to maintain an attractive campus environment and minimize costs.

4.14 Native Plants – The College will prioritize use of native plant species in landscaping.

4.15 Wildlife Habitat - Develop programs to protect and/or create wildlife habitat on college-owned land.

\(^4\) Estimate of Earlham College Facilities Director Ian Smith, 12-18-2012.
4.16 Become a Tree Campus USA location recognized by the Arbor Day Foundation’s Tree Campus USA program.

4.17 Develop a waste minimization and re-use system for college compost or mulch waste from grounds keeping, including grass trimmings.

Responsible Office(s): Grounds management team including the Assistant Director and Director of Facilities, Campus Landscape Designer, and the Sustainability Coordinator.

f. Purchasing

Computer and Electronic Device Purchasing

Current Practice: The College currently purchases some Electronic Product Environmental Assessment Tool (EPEAT) certified computers.

Recommendations:

4.18 Adopt a campus-wide policy to purchase EPEAT Silver or higher for desktop and laptop computers, as well as monitors and peripheral devices when fiscally responsible.

Responsible Office(s): Information Technology Services

Cleaning Product Purchasing

Current Practice: The Earlham College Green Cleaning Policy was adopted in 2010. The policy is available online at www.earlham.edu/sustainability. The policy gives preference to Green Seal cleaning products when chemicals are needed. Aramark uses Blue Cleaning technology across campus, which is chemical-free deionized water.

Recommendations:

4.19 Include in any future contract negotiations with housekeeping providers that the most environmentally friendly standard cleaning practices are to be used wherever economically and technically feasible.

Responsible Office(s): Housekeeping Manager

Office Paper Purchasing

Current Practice: The College currently buys copier and printer paper with at least 30% post consumer waste though it is not clear that all individual departments, programs, and offices maintain this standard.

Recommendation:

4.20 Continue the purchasing of recycled content paper, increasing the amount of recycled content when fiscally responsible.

Responsible Office(s): Informational Technology Services, individual offices who purchase paper

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Vendor Code of Conduct

Current Practice: The College currently has a Vendor Relations Committee

Suggestion:
1. Create and implement a policy that creates a vendor code of conduct that sets the expectations that we have about the social and environmental responsibility of vendors with whom we do business.

Responsible Office(s): Business Office and the Sustainability Coordinator.

Purchasing of Goods

Current Practice: Departments and individuals purchase goods on their own from vendor of their choice and have them shipped to campus.

Recommendations:
4.21 Create a centralized purchasing area that orders and delivers/provides supplies and consumables to campus that are used campus wide.

Financial Implications:
Having centralized purchasing will save the college money via shared orders and shipping and efficient use of time. The set-up and maintenance of a system will require the creation of a Central Purchasing office and the hire of a full time purchasing professional. The personnel needs for central purchasing will cost at least $40000/year.

4.22 Provide support for historically underutilized businesses, minority-owned businesses, and women-owned businesses by giving preference during RFP processes. Increase purchases made from these types of businesses. Conduct targeted outreach to these businesses about possibilities to work with Earlham.

4.23 When purchasing products, give preference to local products or businesses.


g. Transportation

Campus Fleet

Current Practice: At this time there are eight hybrid electric vehicles out of 26 in the campus fleet.

Recommendation:
4.24 To reduce emissions from campus vehicles through low carbon fuel alternatives.

Suggestion:
1. To replace the older vehicles in the current fleet in a quicker rotation accelerating the rate of change to more alternative fuel vehicles. Consider
purchase of electric. Investigate (as financially viable) opportunities for installing plug-in-electric stations in parking lots.

**Responsible Office(s): Business Office**

**Bicycle Plan and Facilities**  
**Current Practice:** The College has bike racks located around the campus.

**Recommendation:**  
4.25 Develop a more comprehensive and forward-thinking bike program for the College taking advantage of the existing strengths of the Earlham bike cooperative, the desire to connect students to downtown more easily, and the wellness and symbolic benefits of a vibrant campus and community bike culture. The bike program should include bicycle storage and adequate bicycle racks across campus.

**Responsible Office(s): Office of the President, Facilities, and the Sustainability Coordinator.**

**Telecommuting, Car Sharing and Transportation Beyond Campus**  
**Current Practice:** Student Development provides shuttles to various locations around town.

**Suggestions:**  
1. Consider offering a formal telecommute program for employees whose essential work products are not tied to campus.  
2. Participate in a car sharing program, such as such as a commercial car-sharing program like Zip Car, one administered by the institution, or one administered by a regional organization.  
3. Create a stronger relationship between the City of Richmond and Earlham to provide travel for students around Richmond.

**Responsible Office(s): Business Office, Community Relations, and the Sustainability Coordinator.**

**Vehicle Idling**  
**Current Practice:** The college currently does not have a vehicle idling policy.

**Recommendation:**  
4.26 Adopt a policy regarding idling on campus.

**Responsible Office(s): The Sustainability Advisory Committee**

**h. Waste Reduction**  
**Current Practice:** The College does recycle and compost a small percentage of its waste. The Natural Sciences, Visual & Performing Arts, and Tyler Hall construction projects
will recycle at least 80% of construction and demolition (C&D) wastes. The College hosts or participates in local e-waste recycling initiatives. The College has strategies in place to safely dispose of all hazardous, special, universal, and non-regulated chemical waste and seeks to minimize the presence of these materials on campus.

Recommendations:

4.27 Implemented source reduction strategies to reduce total waste generation (garbage, recycling, and compost) per weighted campus user compared to a 2005 baseline.\(^5\)

4.28 Develop campus wide policy and procedures for the following areas:
- Waste Diversion
- Construction and Demolition Waste Diversion
- Electronic Waste
- Hazardous Waste
- Surplus Materials Exchange
- Printing
- Providing Materials Online
- Move-in/Move-out Waste Reduction

\(...\)

Financial Implications:

A Waste reduction/recycling coordinator at 20 hrs/week year round ~ $11000 will be required for oversight and effective implementation of these initiatives. The savings to the college accrued by diverting and recycling waste are estimated to balance out the cost of this added position.

Responsible Office(s): Director of Facilities, Information Technology Services, Residence Life, Business Office, Registrar, and the Sustainability Coordinator.

i. Water

Measuring Water Consumption

Current Practice: The college currently has no centrally monitored, real-time measurement. Water consumption is measured by municipal water meters for those buildings with separate accounts.

Recommendations:

4.29 Implement building-level water metering across campus, and use this data to drive a reduction in campus wide water consumption by a specific percentage, within an agreed number of years.

Responsible Office(s): Facilities and Sustainability Coordinator

\(^5\) Total waste generation includes all materials recycled, composted, and disposed of as trash except construction, demolition, electronic, hazardous, special (e.g. coal ash), universal and non-regulated chemical waste, which are covered elsewhere in this framework.

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Stormwater Management

Current Practice: Full compliance with federal and state requirements of the Municipal Separate Storm Sewer System (MS4).

Recommendations:
4.30 Create a campus wide stormwater management plan that mitigates stormwater runoff impacts of new construction, major renovation, and other projects that increase paved surface area on campus or otherwise significantly change the campus grounds.

Responsible Office(s): Facilities and Sustainability Coordinator

Water Use Reduction:

Current Practice: We have two waterless urinals on campus. We currently use little to no non-potable water on campus, xeriscaping techniques and weather-informed irrigation.

Recommendations:
4.31 We continue to integrate waterless urinals when applicable.
4.32 Use non-potable water (harvested rainwater or gray water) for irrigation and/or other applicable applications.
4.33 Use Xeriscaping techniques across campus. Include the use of drought tolerant plants when possible.
4.34 Use weather data or weather sensors to automatically adjust irrigation practices.

Responsible Office(s): Director of Facilities, Assistant Director of Facilities, Grounds Supervisor, Campus Landscape Designer, and the Sustainability Coordinator.
### V. Estimated Financial Implications

The following table includes cost estimates of the portions of the Sustainability Plan for which reasonable cost estimation is possible. See notes on following page.

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Notes on Sustainability Plan Projected Expenses:
The expense to the college of a waste reduction/recycling coordinator ($11000/yr) and a central purchasing office ($40000) will likely be offset by the cost savings the two positions will create.
Several operating budget expenses may be able to be funded via existing special funds. Determination of funding sources would need to happen in conjunction with the Vice President of Finance.

Estimated Costs and Savings from Recommendation 4.10– Contract with an Energy Services Company to increase energy efficiency. For illustration only, actual costs are not represented here.

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Note: The scenario mapped here assumes an initial $2,500,000 investment in energy efficiency projects through a contract with an Energy Services Company with guaranteed savings of $400,000/year, or 30% of our current $1,200,000 current energy costs. The savings are used both to pay off the initial investment, and to seed a Revolving Loan Fund to be used for further energy saving projects as outlined in recommendation 3.21 for the first four years of the contract. After the first four years, all energy savings would go to paying off the initial investment. After eight years the total investment would be repaid and further savings would accrue to the college.

This model is highly simplified and estimated. It does not take into account inflation, changes in the college’s energy needs, or future energy costs, though it is expected that all of these factors will result in increased energy costs for the college, thus further enhancing the benefits of acting now with an energy services contract to improve energy efficiency.

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