United States Environmental Protection Agency New England

Building Sustainable Programs

Environmental Performance Reporting

Updated January 2007

Summary: More than 2,000 organizations worldwide voluntarily publish environmental reports, but only a small number of colleges and universities report periodically on their environmental performance. The University of Vermont and the University of North Carolina recently published comprehensive and publicly available performance reports focusing respectively on the impact of their activities and operations on the environment and their programmatic achievements. Other institutions, such as Yale University, are gathering information with respect to their environmental impacts and are initially using the information as an internal management tool to guide decision-making and minimize the university's ecological footprint. It should be noted that these reports are generally related to the campus "greening" movement and highlight "beyond compliance" efforts. Unlike corporate environmental reports, campus environmental performance reports generally do not address core regulatory compliance data or programs. This Best Management Practice describes the different reporting approaches taken by these three distinct institutions, and provides additional resources for colleges and universities that wish to pursue environmental performance reporting.

Campus Profiles

University of Vermont
Burlington, VT
Undergraduates: 7,601
Grad Students: 1,500
FT Faculty: 928
Reports: Issued in 1998 and 2002

University of North Carolina
Chapel Hill, NC
Undergraduates: 15, 844
Grad Students: 9,636
FT Faculty: 2,600
Reports: Issued in 2000 – 2003

Yale University
New Haven, CT
Undergraduates:5,253
Grad Students:8,792
FT Faculty: 2,952
Reports: Issued first in 2001

Project Goals

- Define the environmental impacts associated with campus operations and activities.
- Provide a framework for discussion and debate.
- Capture the data and the programmatic stories to assist in prioritizing actions to reduce the campus' environmental impacts.
- Provide a baseline for evaluating the future success of campus greening efforts.
- Provide a complete picture of campus operations, impacts, and/or programs.
- Promote coordination of environmental programs and initiatives on campus.

Description

- Environmental efforts on campus were not effectively communicated.
- Environmental information of data was absent, obsolete, or unreliable.
- The ability to prioritize decisions or make strategic decisions was limited because of inadequate information (e.g., no trend data).
- There was an inability to compare performance among schools or with other colleges and universities.
- Student, faculty, and community concerns were difficult to address in a coherent and informed manner because of the lack of data.

Created by Campus Consortium for Environmental Excellence through EPA funding

Pre-Project Considerations

Begin by answering the following questions:

- What is the purpose of the report?
- What data is available to be used in developing the report?
- Can useful data be captured in the timeframe you have in mind?
- Will the report focus on data, program stories or a hybrid?
- Will the report use indicators or a reporting format used by others, or will the report be unique to your university?
- Who is your audience?
- Who will write the report?
- Will the report be available for public review?
- Will you update the report in the future? Do you think that future reports will have the same format or track the same indicators?

Examples of Indicators Used

Energy
- Total kWh/yr
- Total Terajoules/yr
- Percent renewable

Water
- Total gal/yr
- Total cubic ft/yr.

Materials
- Total tons/year or capita

Paper
- Total reams/yr or capita

Recycled Materials
- % of recycled materials in selected projects

Land Use
- Percent greenspace
- Storm water peak flows
- Pesticide Usage

Leased Products
- % of selected products leased rather than purchased/yr.

Greenhouse
- Total tons CO2/yr
- Total pounds CO2/yr sequestered by campus forests
- Total tons of CO2/yr by source

Transportation
- Total parking spaces
- Average commute

Waste
- Total tons of municipal waste/yr
- Total tons construction waste/yr
- Total pounds hazardous waste/yr

Steps Taken: Three Models

University of Vermont – *Tracking UVM: Campus Environmental Report (for the years 1999-2000)* – http://www.uvm.edu/greening/. The Report was designed to serve as a "report card" and provide campus-wide quantitative information regarding the physical impacts associated with UVM's operations and activities and track trends over the past ten years. This report was a follow-up to a 1998 "Greening UVM" report which identified significant environmental aspects of campus operations and activities. Significant internal and external (e.g., Burlington community) stakeholder input and review went into the 2002 report. Major findings are presented in three sections (Land and Water Use, Energy and Air Pollution, and Solid and Hazardous Waste). Each section includes information on the following topics: Resource Map, Campus Resource Use, Trends, UVM Programs and Best Practices, Community Concerns, and Next Steps.

University of North Carolina – *Campus Sustainability Report (2003)* -- The Report provides narrative, project-focused "updates" on improvements and initiatives in many areas, including: (1) Master Planning; (2) Potable Water; (3) Stormwater; (4) Grounds; (5) Buildings; (6) Transportation; (7) Materials Management; (8) Purchasing; (9) Academics; (10) Smart Growth; (11) Public Service, and (12) Outreach. Within many of the project and program descriptions, quantitative information regarding physical impacts, costs, cost savings, and other data has been provided. Quantitative information regarding the total campus impact was generally not addressed.

Yale University – *Annual Report of the Sustainability Coalition (2001)*. The Report assesses ten metrics, including (1) energy usage; (2) water usage; 3) materials usage—by certain categories (e.g., computers) 4) paper usage (volume or expense); (5) recycled materials; (6) leased products; (7) CO^2 emissions; (8) waste disposal; (9) fertilizer use; and (10) land use. In conducting the assessment, Yale used semi-quantitative assessment matrices in which environmental concerns and life cycle issues were addressed by using an input/output model for the campus. Armed with this data, the report used a decision-making tool to provide a "score" for the university and to guide decision-making.

Participants

A faculty/staff/student group provided direction and oversight for the report at each university. The name of the group and its composition is described below.

UVM – Environmental Council*:* includes Faculty (4), Students (3), Alumni (2), and Administration and Staff (11) including physical plant, purchasing, planning, transportation, facilities, EH&S, and Environmental Council. Additionally, three external environmental consulting and community organizations were involved in overseeing and facilitating the report's stakeholder input and review process. The report was widely disseminated and is available on the web.

UNC-Chapel Hill Sustainability Coalition: is composed of 8 task groups. Members include Faculty (5), Students (3), Alumni (0), Administration and Staff (31), including directors of certain environmental programs at the university, associate vice chancellors (2) and wide variety of facilities, EH&S, energy, transportation, housing and building services. A copy of the report was widely distributed internally to key stakeholders and to relevant external stakeholders, such as state environmental agency personnel and higher education sustainability coordinators through the Green School Listserve. The 2003 report will be available on the web.

Yale – Provost's Advisory Committee on Environmental Management (ACEM): includes Faculty (8), Students (4), Alumni (0), and Administration and Staff (8), including EH&S staff, facilities staff, procurement, planning, assistant provost, and occupational physician. The report is currently not available on the web, although Yale has plans to make public its next annual environmental report.

Performance and Benefits

Project Costs

At UVM, the "fully loaded" costs of capturing the data, managing the stakeholder process, and preparing the report was approximately $100,000. This includes overhead, resources, and all personnel time, including a portion of the salary of the Sustainability Coordinator, a project manager, certain stakeholders who were compensated for their input and review, and design and printing. Eighty percent of these costs were covered by grants. This trend-reporting project was completed in eighteen months, from start to finish.

At UNC, approximately $2,000 was spent on design and printing of the annual report. Costs associated with overhead, the writing of the report by the Sustainability Coordinator, and review and editing have not been quantified.

At Yale, the costs of preparing the report have not been quantified. Professor Graedel, graduate students, and various members of the Yale community prepared the report.

Benefits

UVM Model – The quantitative trend analysis shows those areas where considerable progress toward a sustainable campus is being made and those areas where improvement is necessary. The data rich report enables UVM to address perceptions and misperceptions of faculty, staff, students, and community stakeholders. For example, a common perception among Burlington stakeholders interviewed for the report was that UVM's students were the primary users of parking on campus and the main contributors to traffic. The data showed that this was not the case. Students accounted for only 28% of parking.

UNC Model – The focus on program stories provides (a) a framework for interpretation, understanding and meaning of environmental initiatives and actions; (b) motivation to faculty, staff and students (c) a vision of the possible at UNC. The greatest benefit of the report is informing UNC faculty, staff and students about the extent of UNC's greening practices.

Yale Model – Based on the internal review of environmental impacts and performance, the Advisory Committee on the Environment crafted an environmental plan and the provost approved the initiatives recommended. Implementation of the plan began in 2002. The University plans to publicize the information in the future.

Lessons Learned

1. The amount of time to gather the data and stories and to obtain people's review of the information will be at least four times greater than your best estimate.
2. People like stories with clearly defined actors and results.
3. Quantitative data, rather than anecdotal information, supports more productive discussions with administration, Board of Trustees, faculty, staff, students, and community stakeholders.
4. Do not overcommit. If you wish to publish an annual report to keep the "issues alive", consider a small, focused report or simply chronicle the program stories. If you wish to report on performance to track performance trends and develop strategic plans for improving your institution's environmental performance, you may consider reporting every 3-5 years since change happens slowly at universities and assessing success or failure may be more accurate in that timeframe.

Further Information or Resources

Gioia Thompson, Coordinator, UVM Environmental Council, envcncl@zoo.uvm.edu, 802-656-3803

Cynthia Pollock Shea, Sustainability Coordinator, cpshea@fac.unc.edu , 919-843-5251

Professor Thomas Graedel, Ph.D., Professor of Industrial Ecology, Yale University, thomas.graedel@yale.edu

Global Reporting Initiative www.globalreporting.org

Other Performance Reporting Programs and Resources

According to research (3/2001) compiled by the Campus Sustainability Assessment Review Project, forty two (42) colleges and universities had performed Comprehensive Sustainability Assessments had been performed since 1990. Only four reports were issued in 2000. These reports vary in breadth, scope and format. For a full listing of these reports, send an email to *campus.assessment@wmich.edu*

Middlebury College, State of the Environment at Middlebury Report (1998), http://community.middlebury.edu/~enviroc/state.html

University of California – Santa Barbara, Greening UCB: Development of an Assessment Protocol and Policy to Improve Campus Sustainability (2001)

University of Florida, University of Florida Sustainability Indicators Report (2001)

Campus Sustainability Assessment Review Project, Dr. Harold Glasser, 616-387-5626, campus.assessment@wmich.edu

University Leaders for a Sustainable Future
http://www.ulsf.org

Commentary

Colleges and universities are accustomed to comparisons. Use of a similar reporting framework or agreement on a limited set of common indicators would allow credible comparisons, trend analyses and prioritization of action plans based on actual, rather than perceived, performance would greatly enhance the greening movement at colleges and universities. ULSF and GRI are currently discussing the development of a "Resource Document" to assist in the development of sustainability reporting guidelines for higher education.