

# Sustaining Excellence

*A Proposal for Institutionalizing Environmental Sustainability at the College of William and Mary*



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**I. Executive Summary**

This report outlines a proposal for an Office of Sustainability for the College of William and Mary. The responsibility of this office will be to facilitate initiatives for environmental sustainability at the College through coordination with various administrative and academic departments. The interdisciplinary nature of most sustainability issues requires that this office be both autonomous in its decision-making and unique in its operation, working with administration, faculty, and students, to develop and maintain projects within the context of a long-term institutional sustainability plan. Offices of Sustainability are commonplace among peer institutions and necessary for universities who take seriously the important role of sustainability in higher education. Ultimately, a full time position or positions will be required to adequately meet the responsibilities of the Sustainability Office; however, because of the challenges incumbent in designing and creating a new administrative office, we further propose an interim committee to begin immediately fulfilling this essential role.

**II. Introduction**

In a recent speech to workers at a California photovoltaic manufacturing plant, Presidential hopeful Senator John McCain posed the following scenario: “Suppose that those of us who believe that climate change is real and that we must act immediately are wrong. Suppose we embrace new technologies and we reduce greenhouse gas emissions by making this a national priority. Then all we’ve done is given our kids a cleaner planet. But suppose we are right and do nothing...” This sentiment recognizes that in a world of rising temperatures and rising seas, we cannot simply opt out of our moral choices. Individuals and institutions alike may choose to take action to combat the global environmental crisis through ambitious initiatives to improve energy and resource efficiency and to reduce consumption. However, if we fail to act, we are also making a

choice, one which is morally irresponsible given the potentially devastating consequences with which we are faced.

In light of the scope of the challenge, the concept of “thinking globally, while acting locally” is no longer adequate. We must begin to “think globally, and act globally.” As an institution of higher education, The College of William and Mary has the responsibility to teach and practice a higher standard of learning. In this case, institutions of higher education must emphasize to the world that global changes in addition to individual actions are needed to protect our environment.

In the recently released 2007 College Sustainability Report Card, the College received a D – overall in its commitment to and practice of sustainability. Competitors such as The University of Virginia, Cornell University, Stanford University, and Georgetown University, all received higher than a B-. As an institution, we cannot expect to remain one of the nation’s premier institutions of higher education if we remain stagnant and inflexible with changing times. The College of William and Mary can no longer afford to ignore that climate change is happening and it is imperative that the College practice the fundamental principles of “higher education,” which will enable William and Mary to become a beacon for meaningful change.

### **III. Objectives**

The College will be unable to change policies and practices overnight, however, the College can become a member of the Presidents Climate Commitment (PCC), which expresses the College’s commitment to become carbon neutral. In addition, the College can form a campus-wide committee to coordinate sustainability initiatives, which would include representation of students, faculty, and support staff, who would evaluate methods to transform the College into an “eco-friendly” campus. This committee would report directly to the Presidents cabinet and the Board of Visitors insuring that their recommendations are heard. In addition, the College should discuss implementing a “Kyoto” type protocol on campus, which would set a certain percentage that the College commits to reduce its carbon emissions by. Furthermore, a campus-wide forum to discuss the College’s environmental intentions would allow the entire campus to contribute their opinions on the direction the College should follow. These various options are rather fundamental and conservative, therefore should be implemented immediately.

### **IV. Resources**

As a top tier-institution with a bottom-tier budget, the College of William and Mary has been limited in the adoption of new environmental projects and initiatives because of year-to-year fiscal constraints. However, a recent partnership of current students and the William and Mary Student Environmental Action Coalition (SEAC) proposed a partial solution to the College’s limited environmental/sustainability budget- a student Green Fee. Common among institutions of higher learning, a Green Fee is incorporated into the general student fee, which includes auxiliary services (i.e. bus services, intercollegiate athletics, etc.) and student activities fees. Currently at the College of William and Mary, the general student fee is \$1,600 per semester per student. The

Green Fees Proposal advocates that the College of William and Mary raise the general student fee by \$15 per semester per student to a new total of \$1,615. This increase of less than one percent of the previous general fee would be collected from all full-time undergraduate, graduate, and professional students.

Therefore the implementation of a \$15 Green Fee would result in approximately \$225,000 annually for sustainable investments. The Green Fees Proposal outlines a model of how such funds might be most effectively allocated, in four discrete portions. Approximately 45% of the total fund, or approximately \$100,000 might be utilized to fund facilities upgrades and capital renovations on campus. It is suggested that an additional 10% fund student projects and research. A portion of the remaining funds would be allocated to founding a “Sustainable Endowment,” invested in environmentally responsible companies to generate additional income through interest. Finally, Green Fees might also be used to fund the project budget and, at least temporarily, the operational budget and administrative salary of an Office of Sustainability, as we will discuss.

## **V. Implementation and Timeline**

In the short term, and starting immediately, a Steering Committee for Sustainability should be established to serve as the central point of coordination for sustainability initiatives; providing a forum for input from community stakeholders such as students, faculty, and administration; and generally laying the groundwork for and shaping the role of sustainability as a major priority of the College.

This Committee should be made of students, faculty, and staff, selected with attention to experience and interest in sustainability as it relates to the College community. Such campus-wide committees exist for a number of capacities within the institution already, including the Landscape, Environment, and Energy Committee, which at least ostensibly maintains provisional oversight of projects involving environmental concerns. However, the role of the Committee for Sustainability will necessarily be larger in scope than any existing body of this kind. The responsibilities of the Committee, and its component working groups, will require a commitment of time and expertise beyond what is expected in existing committees.

The Green Fees Proposal (see Appendix I) suggests that a new committee might be created, made up of 15 members: 5 students (one being a co-chair), 2 grad students, 4 Faculty members, 2 members of facilities, and 2 administrators (one ex-officio co-chair). A second model proposes that the Landscape, Environment, and Energy (LEE) Committee should be restructured into the proposed Committee on Sustainability. This restructuring of the LEE committee into the Committee of Sustainability would be necessary because currently the LEE committee is not charged with the responsibility or the authority to allocate any of the general student fees. Furthermore, the current structure and membership of the LEE committee was established without the consideration that allocating student funds would be one of its responsibilities, therefore simply changing the duties of the LEE committee will not be satisfactory or ethical. Because the official mandate of the LEE Committee is inadequate for the purposes of enacting institution-

wide sustainability initiatives, we recommend that a new campus-wide committee be established by direct authorization of the Office of the President.

In addition to holding regular, monthly meetings, the Committee should maintain several standing working groups, which should also meet on a regular basis. In particular, one such subcommittee should be established to make advisory decisions concerning the allocation of student Green Fees. To ensure accountability, the Committee should draft and approve an official constitution, outlining procedures for decision-making, the election of leadership, and requiring regularly scheduled and effectively run meetings, including a commitment to a public and democratic process in setting and maintaining the meeting agenda. Working groups organized under the auspices of the Committee for Sustainability would be responsible for coordinating initiatives focused on addressing general environmental issues of concern the College (refer to Figure 1 for organizational mapping of the committee).

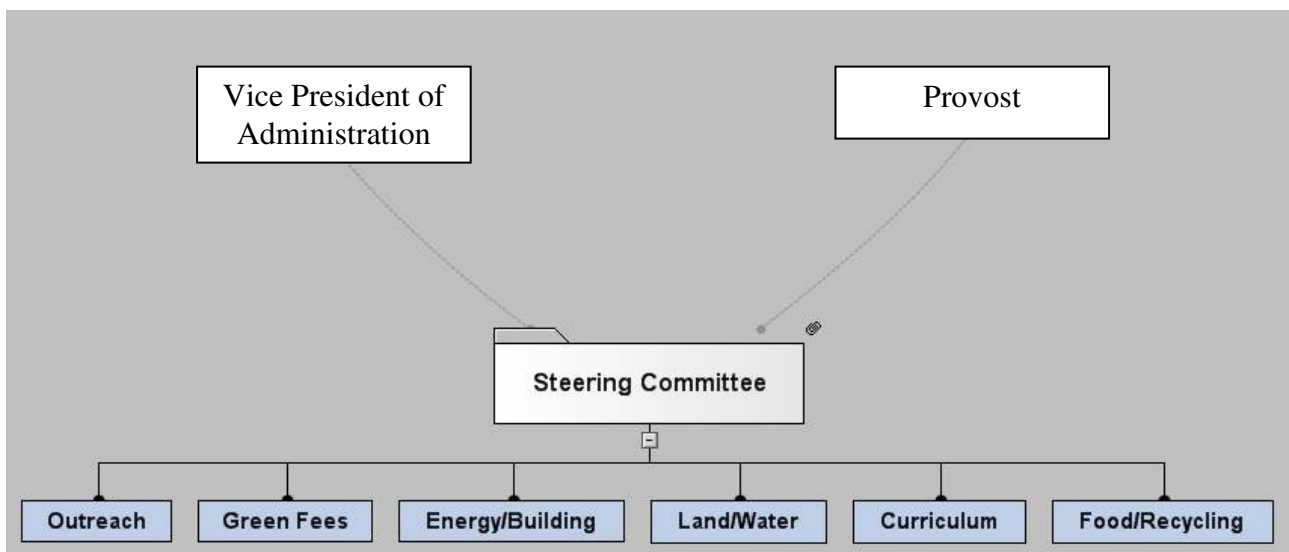
### **Project Working Groups**

- I.*        Waste Reduction and Procurement Working Group- This subcommittee would design and implement projects intended to improve the efficiency of resource use at the College. This would include efforts to expand recycling on campus, projects to reduce food or other wastes through institutional policies or personal use practices, and initiatives to encourage or require environmentally responsible purchasing through applicable contracts, including food purchases. We recommend that the Director of Dining Services or equivalent as well as representatives of other related contracted service providers serve in an advisory capacity to this group.
- II.*        Energy and Green Building Working Group- By far the largest use of energy on the campus of the College involves buildings, primarily in the forms of electricity usage and climate control. It is encouraged that this Working Group should include at least one *ex officio* member from Facilities Management, particularly the current Energy Manager or equivalent.
- III.*        Water and Landscape Working Group- Another environmental concern for the College involves landscape and water management. As new capital projects proliferate on campus, impervious surface area increases, and storm-water runoff is causing damage to our landscape and watershed. The Water and Landscape working group will coordinate efforts to address such issues and should include members of Facilities Management involved in grounds management in an *ex officio* capacity.

### **Institutional Working Groups**

- I. Green Fees Working Group- Due to the nature of sustainability initiatives as largely student-driven, we strongly recommend increased student representation in the Committee, and especially in the decision making processes determining the allocation of student Green Fees and in the facilitation of community-wide personal use practice campaigns. Chaired by a student member of the Steering Committee, this working group will make recommendations concerning the use of Green Fees to fund capital and student projects, to be submitted to the full Steering Committee for final approval.
  
- II. Educational Working Group- This group will facilitate person-use practices campaigns to encourage responsible environmental citizenship among members of the William and Mary community and will work with faculty to incorporate, where applicable, the principles of sustainability into the existing curriculum. We recommend that the role of faculty members be emphasized in any subcommittee or working group dealing specifically with curricular or educational component of sustainability initiatives.
  
- III. Outreach Working Group- One important component of an institutional effort to coordinate sustainability initiatives is the ability to measure progress, evaluate success, and make publicly available plans for and evaluations of past and ongoing projects. The Outreach Working Group will be responsible for gathering data on changes in energy use, resource efficiency, and other environmental behaviors. It is important that this group work independently of those charged with initiating actual projects to ensure accountability. In addition, the group should coordinate efforts to engage alumni and outside organizations in the process of institutionalizing sustainability.

**[Figure 1]**



Officially advisory in its role, it is nevertheless essential that the Committee should maintain a substantial degree of autonomy and that its decisions should carry considerable weight with individuals and offices within the administration. In recognition of its role as an institution-wide entity, the Committee for Sustainability should report directly to both the Vice President for Administration, through whose office capital projects must be approved, and the Provost, who oversees decisions concerning curriculum and other educational experiences.

Although the Steering Committee for Sustainability should play a leading role in the institutionalization of sustainability, we strongly advocate for the eventual creation of a permanent Office of Sustainability. Essential to this plan is a full time administrative position- a Sustainability Manager or equivalent. Like the Steering Committee outlined above, the Office should report dually to the Vice President for Administration and the Provost, in order to facilitate coordinated sustainability efforts in both the physical and academic spheres of the institution.

The role of the Office of Sustainability is threefold. Its responsibilities should not replace, but rather complement and supplement those of the Committee for Sustainability, particularly in the realms of academics, facilities, and leadership.

**Academics-** Just as the primary function of the institution is to further the pursuit of knowledge generally, so an integral role of the Sustainability Office will be one of education.

*I.*     Curriculum- Sustainability can be incorporated into the curricular experience either as a primary course of study or as a secondary subject. The interdisciplinary Environmental Science and Policy Program offers secondary majors and minors in Environmental Science (B.S.) or Environmental Policy (B.A.), as well as courses designed as supplemental to other concentrations. In the future, a sustainability proficiency requirement might be designed as a General Educational Requirement, or as a departmental requirement. In either case, the Office of Sustainability would play an important role in overseeing this function in collaboration with the Director of the ENST Department.

*II.*    Internships- The Office of Sustainability might also employ student interns to develop environmental initiatives and programming, thus furthering the mission of the Office while also providing valuable training and experience in an essential and growing professional field.

**Facilities-** A large and highly visible component of the responsibilities of the Sustainability Office would consist of new capital and building renovation projects, as well as other initiatives to encourage sustainability in the physical systems of the College. While many such projects are currently sponsored by Facilities Management, Dining Services, and other administrative departments, there is a definite need for inter-

departmental coordination and institutional publicity of these initiatives. The areas where the Office of Sustainability would play a role include the following:

*I.* Energy Consumption and Building Design: The Sustainability Office would initiate projects on campus to reduce energy consumption, increase energy efficiency, and explore renewable energy possibilities. Such projects would ultimately be the prerogative of Facilities Management, in particular the Energy Manager. The Sustainability Office would be involved in the planning and design processes for both new construction and renovation projects on campus in order to ensure the use of sustainable building practices that would lead to both cost savings and environmental sustainability.

*II.* Food Sustainability and Waste Management: The Sustainability Office would initiate projects to reduce waste, increase recycling, and increase food composting. Such projects would be undertaken through partnerships with such separate administrative entities as Dining Services and Facilities Management.

*III.* Landscape Management and Water Use: The Sustainability Office would initiate projects on campus to reduce water use and explore new water conservation technologies.

*IV.* Data Collection: The Sustainability Office should partner with the Outreach Working Group described above to collect data regarding campus energy, emissions, waste, and water. The Office should utilize its resources and expertise to help track the progress of these areas to measure improvement and identify future projects.

**Leadership-** Arguably the strongest argument for a permanent Office is the demonstrated need for recognized and effective leadership for establishing and maintaining sustainability initiatives.

*I.* Campus and Community Outreach and Education: Any concerted campaign to encourage institution-wide sustainability must necessarily include efforts concerning personal behaviors among members of the university community. The Sustainability Office would initiate educational awareness campaigns to promote sustainable practices in the daily lives of students and the community. This could include working with student and community environmental groups, hosting sustainability forums and conferences, and publicizing the work and progress of the Office.

*II.* Sustainability Oversight: The Sustainability Office would provide knowledge and expertise in order to advise policy makers and to assist those working to implement these policies, and provide input in assuring that projects further campus sustainability goals.

The role of a permanent office in ensuring the sustainability of institutional commitments can be seen clearly in the example of the Office of Student Volunteer Services at the College. A commitment to community service has long been a defining characteristic at the College, culminating in 1994 with the creation of the Office

for Student Volunteer Services. Since its founding, the number, extent, and effectiveness of service initiatives have increased dramatically, granting William and Mary widespread recognition and empowering students to apply their knowledge, energy, and skill towards making social change locally and globally.

Similarly, an Office of Sustainability would serve to facilitate environmental projects more effectively and with greater institutional authority than would be possible with other administrative strategies. A full time administrative position would ensure the long-term sustainability of environmental initiatives and allow voluntary participants in such initiatives to be relieved of unnecessary responsibility.

The creation of any new administrative department within an existing institutional structure is a difficult, sensitive, and often lengthy process. The implementation of an Office of Sustainability is perhaps even more so due to its inherent interdisciplinary and somewhat innovative nature. Thus, the transition to a full-time, fully-integrated office will be an essential process for furthering of sustainability at the College. We therefore recommend the following timeline for the adoption of this model, allowing for a fully funded Office of Sustainability by the 2014/2015 Academic Year.

#### **Academic Year 2008-2009**

The Committee for Sustainability is established. Student Green Fees are collected and allocated according to the model outlined above. “Sustainable Endowment” is founded using Green Fees.

#### **Academic Year 2009-2010**

Committee for Sustainability continues to collect and allocate student Green Fees to fund sustainability projects. Additional funding opportunities are investigated, including donations and grants from outside organizations.

#### **Academic Year 2010-2011**

Office of Sustainability is established. Salary for an administrative position will be funded through student Green Fees and grants provided by the Environmental Science and Policy (ENSP) Department.

#### **Academic Year 2011-2012**

Office of Sustainability project budget and salary continue to be funded through student Green Fees and ENSP grants. Additional funding will be sought through Business and Law school and from contributions from alumni, as coordinated by the Committee for Sustainability Outreach Working Group.

### **Academic Year 2012-2013**

Office of Sustainability project budget continues to be funded through student Green Fees and supplemental funds. Administrative salary is provided primarily by these sources, but 30% is obtained through William and Mary unrestricted funds.

### **Academic Year 2013-2014**

Unrestricted funds provide 60% of administrative salary. Office of Sustainability project budget continues to be funded through Green Fees.

### **Academic Year 2014-2015**

Unrestricted funds provide 100% of administrator salary, in accordance with standard institution policy. Project budget is funded through Green Fees indefinitely and additional projects may be funded through these or other available monies.

## **VI. Conclusion**

During its more than 300 years of excellence in higher education, the College of William and Mary has developed a unique reputation as both public and great. Underlying the spirit and character of the College is its threefold commitment to education, service, and civic responsibility. In the twenty-first century, sustainability is inextricably linked to each of these, making the institutional adoption of this principle both a natural progression and a moral imperative for the College in each of these areas.

**Education:** A vast scientific consensus holds that the world is changing, in ways that society could not have imagined even a century ago. As human populations soar and consumption continues to rise, the fragile ecosystem and limited resource base on which we are dependent are fast becoming strained. The challenge is already a tangible one, and for the rising generation of global citizens, it may well be the defining struggle. Where the mandate of any institution of higher learning is to prepare students to become productive and responsible members of society, it is incumbent upon colleges and universities to incorporate the principles of sustainability into their curricular and educational goals.

**Service:** In recent years, the College has embraced a mission of civic engagement through a commitment to service. Increasingly, this commitment is no longer limited to traditional volunteerism, but includes a serious and pressing responsibility to practice the principles of sustainability. Indeed, there is perhaps no higher service than that of being a conscientious steward of the global ecosystem of which we are a part, in order that we may ensure the prosperity not only of this generation but of generations to come.

**Civic Responsibility:** The College of William and Mary is unique among its peer institutions in its commitment to the principles of public education. With such recognition comes a serious responsibility to practice the kind of civic responsibility that our institution has come to represent. It is not enough to train the leaders of tomorrow; we must also strive to lead by example. We must re-envision the day-to-day operations of the College to incorporate environmental sustainability and stewardship, beginning with a serious institutional commitment to these principles. Having fallen behind many of our peer institutions, we can no longer hide behind a lack of funds to mask a lack of leadership. The student body has spoken through its endorsement of Green Fees. Civic responsibility in the shape of sustainable practices is the mandate of the College.

The College of William and Mary sees itself as a leader- one that calls young men and women to serve their world beyond themselves, mindful of the inevitable interconnectedness of all peoples. In token of this lofty charge we, as members of this historic community, challenge our administration to rise to the ideal upon which this institution was founded and with which it has continued to exemplify excellence in higher education for more than three centuries. We challenge the leaders of the College to act on what we see as a community-wide mandate for sustainability. We ask that they consider our proposal for meaningful and lasting institutional commitment to this principle. And we pledge to do our part, as members of a young generation of global citizens, to ensure the sustainability of excellence at the College of William and Mary.

## VII. Appendix

### Green Fee Proposal

#### I. Introduction

Climate change is rapidly becoming the most important issue facing the current generation of college students. While the science of climate change is largely settled, the best path towards solving this crisis has yet to be decided. All that is clear is that well thought-out, scientifically-informed action, directed towards downsizing our collective environmental footprint, needs to occur as quickly as possible.

America's colleges and universities have traditionally been powerful mechanisms for social change. They make up a large yet socially-conscious sector of the economy, spending approximately \$360 billion dollars per year and investing an equal amount, and have an unparalleled ability to both influence the next generation of leaders and generate the knowledge required to solve the environmental issues facing our planet. It is due to this unique position that many schools all across the country are committing themselves to becoming the "greenest" sector of the economy.

Despite being an undisputed leader in the realm of higher education, the College of William and Mary has so far failed to set an example of sustainable education and operation. While we have taken modest steps towards "greening" the green and gold, we have not made the kind of institutional commitment to reducing our environmental impact that is necessary. As time goes on, this position will become more and more untenable. The legal landscape of environmentalism is rapidly changing. It is certain that sometime within the next decade, cuts in carbon dioxide emissions will be mandated by legislation at either the state or federal level. Indeed, some states have already passed such bills. Sustainability has also become influential in determining many institutions' reputations. Universities around the country are increasingly beginning to use their environmental actions as a selling point to attract prospective students. As time goes on, the window of time during which we have the opportunity to brand William and Mary as a green institution is narrowing. In the heavy competition for highly qualified students, sustainability is a way for William and Mary to distinguish itself from its peer institutions.

Largely, we have been hampered in our effort to become sustainable by the constraints of our budget. Unfortunately, our tight year-to-year fiscal situation has made it very difficult to make the initial capital investments in projects that have extremely good rates of return over the medium and long term. Funding is frequently not available at all for environmental projects that do not yield a return in the same fiscal year.

There is an easy solution to these problems: the institution of a student green fee. A modest fee increase of \$15 per student, per semester (less than one percent of the student general fee) would generate \$225,000 each year for green initiatives on campus. The student body has demonstrated its support of such a green fee. A survey of 400 undergraduates showed that 85.5% of students would support a \$15 fee increase. This same survey also found that 96.9% of students feel that it is of importance for the college to operate in an environmentally sustainable manner, 48% of whom responded that it is "Very Important" for the college to do so. This green fee would create a long-term, predictable revenue source to fund environmental projects on campus. By joining the nationwide movement towards more environmentally sustainable campuses, we can create a model which other institutions can follow, educating and preparing the next generation of leaders for the environmental challenges they will face. Pursuing campus sustainability initiatives will also produce appreciable reductions in utility costs, generating long term returns for the college and providing future opportunities for further research.

In the sections below, we will outline the empirical research surrounding green fees, the details of the fee raise (including where the money will be spent and how), sample project ideas and their associated costs, and a summary of student support.

#### II. Empirical Research

Many institutions of higher education have experienced a similar lack of funding for campus sustainability initiatives, and they have responded to this common challenge by instituting green fees. An extensive and diverse variety of schools have taken this step to overcome the initial capital outlay associated with making campus buildings and operations more sustainable. Table 1 (see appendix I) outlines a selection of schools which have approved the initiation of student green fees, including all available information for how much the fees are, how they were initiated, and what projects they are used to fund. Among these schools are many of our peer institutions, including the University of Virginia, the University of Maryland, Harvard University, and the University of North Carolina at Chapel Hill.

The majority of institutions have initiated these fees following the demonstration of student support through a referendum process. These voting procedures typically illustrate widespread student body concern and support for campus sustainability. Of the schools listed below, referendums were passed on average by 84%. In many regions of the country where renewable energy is available for purchase, student green fees serve to fund the additional cost of purchasing solar and wind energy to power their institutions. In regions where renewable energy is not yet available, these fees are often used to purchase renewable energy credits to ensure that more clean energy is put on the national power grid. In several other cases, the fees fund on-campus generation of alternative energies such as biodiesel, geothermal, and solar power. Student green fees are also used to fund other sustainable initiatives such as recycling programs and facilities upgrades.

#### III. Proposal for William & Mary

##### A. Source and amount of fee

We propose that the College of William and Mary raise the student general fee by \$15 per semester to a new total of \$1,615 per semester per student. This increase, representing less than one percent of the previous fee, would be collected from all full-time undergraduate, graduate, and professional students. With an estimated 7,500 full time students (5,500 undergraduate, 2,000 other), this fee will result in approximately \$225,000 being collected annually for sustainable initiatives.

## *B. Responsibility for fee allocation*

The responsibilities of identifying facilities projects, reviewing applications for student projects, and monitoring the implementation and progress, will require significant time commitment from all members. The time commitments, meeting structure, and application process of the existing Landscape, Energy, and Environment Committee are not sufficient to adequately meet these obligations. The scope of these responsibilities will be beyond the current description of the LEE committee, which is strictly advisory in its role. In particular, the use of monies generated through fees collected from students requires a greater participation of students in the oversight of these funds than is currently afforded in the existing committee structure.

Thus, the allocation and oversight of the fee will fall to an administrative structure designed along the lines of one of the following models:

Option 1: In response to the concerns outlined above, the LEE Committee is currently re-examining its role and structure. As the new Committee on Sustainability, it may choose to incorporate the responsibilities of green fee allocation into its mandate. In such a model, a subcommittee should be created within the Committee on Sustainability with the specific responsibilities outlined above. The subcommittee will maintain its autonomy in the allocation of the fees, but will report to the full committee for approval. While the Committee on Sustainability would determine the specific makeup of the subcommittee, it should maintain an equal ratio of undergraduate and graduate students to faculty and staff members. The subcommittee should have a student co-chair who has the ability to call meetings. If the College decides to create an Office of Sustainability in the future, the director of that office should serve on the subcommittee as well.

Option 2: As an alternative, the allocation of the fee could be the responsibility of a newly created college-wide committee. This committee should be made up of members from all facets of the college community. These members should be selected through a nomination process that focuses on each candidate's experience and/or relevance to sustainable projects on campus. As an example, it could be comprised of:

- 5 students (one co-chair)
- 2 grad students
- 4 faculty
- 2 facilities staff
- 2 administrators (one ex officio co-chair)

Again, any full-time Sustainability Officer should serve on the committee in a full capacity in the event that such an administrative position is created in the future. As this is a fee voluntarily raised from the student body, an undergraduate student should always serve as co-chair of the committee.

## *C. Allocation of fee*

The money from the green fee will be split into three separate funds:

1. The first portion will support facilities upgrades and other renovations on campus. While some possible projects and their associated costs are more extensively explored further within this report, some sample ideas include solar and/or other on-campus renewable electricity generation, campus-wide recycling, and electricity meters for all buildings. The Committee on Sustainability will work in conjunction with Facilities Management to select the annual project(s); facilities will provide a list of projects with their associated costs, rates of return, and energy savings. The committee shall select from this list.

2. The second portion will fund student projects and research for all students at the university. Ideally, this part of the fund will attempt to sponsor between 10 and 15 projects per year, modeled after a similar program at New York University. To disburse the funds, there are two possible administrative structures:

Option A: The Roy C. Charles Center already has the institutional capacity to administer student project and scholarship funds, and currently does so for both undergraduate and graduate students. Professor Joel Schwartz, Director of the Charles Center, has indicated his willingness to administer the funds. This has the advantage of not creating duplicate structures within the university. We would expect that a member of the faculty from the Committee on Sustainability be appointed by the Charles Center to be part of the committee that reviews those scholarship and project applications.

Option B: The administrative body described in section III.B. of the proposal is responsible for reviewing the projects.

3. The third portion will create a green endowment into which all left over funds will be invested. Additionally, we propose an alumni matching funds campaign to supplement the endowment. Judging from the overwhelmingly positive response to our alumni petition in the fall for a greenhouse gas commitment, we expect that there will be a very positive response from many William and Mary alumni.

It is imperative that this green endowment be invested separately from the general endowment. The Green Fund Endowment will incorporate critical principles of sustainable investment: endowment transparency and green investment priorities. Endowment transparency requires that a report on the Green Fund's investment holdings must be made publicly available on the school's website and that a hard-copy listing of all publicly traded shares that the fund owns must be available from the school's finance office. Green investment priorities necessitate that the fund, while maximizing its return, invests in renewable energy and community development funds. There are several mutual funds with high rates-of-return that invest according to these principals, such as the Winslow Green Mutual Funds (ranked by Lipper in the top 1% for small-cap growth mutual funds for three-year and five-year performance). Below is a table of green investment funds and their return relative to the

S&P averages. Clearly, the committee responsible for allocating the funds will have nothing to do with the actual investment of the monies. The inclusion of the funds below is merely to indicate that this is a viable investment strategy.

Fund Name	Code	3 year average return (%)	Plus / Minus S&P 500 TR	5 year average return (%)	Plus / Minus S&P 500 TR
Calvert Large Cap Growth A	CLGAX	6.03	-0.51	13.15	1.3
Spectra Green N	SPEGX	16.66	10.12	16.65	4.82
New Alternatives	NALFX	18.36	11.82	19.29	7.46
Winslow Green Growth	WGGFX	10.4	3.86	22.08	10.25
Green Century Balanced	GCBLX	3.65	-2.89	12.72	0.89
Portfolio 21	PORTX	10.93	4.39	16.54	4.71

Should the College decide to create an Office of Sustainability in the future, a portion of the Green Fees fund may be diverted to provide a project budget for this office. Depending upon the nature of the office or position, these projects may include environmental education awareness campaigns, conferences and lecture series, and coordination among the various sectors of the campus and the greater community. Our research has shown that the average project budget for an Office of Sustainability is approximately \$51,000 annually (not including the salary of staff) while the mean is approximately \$30,000.

#### D- Sample Breakdown of funds:

Should the college decide to raise the general fee \$15 per student per semester, the amount of money raised would be approximately \$225,000. We expect that the breakdown of funds into the various project areas described above would be approximately as follows:

- \$25,000 for student projects
- \$40,000 for an Office of Sustainability (to be split between the facilities fund and the endowment until the College creates the office)
- \$40,000 seed money for the endowment
- \$120,000 for facilities projects

## IV. Projects and Costs

### A-Facilities and Operations

One of the first projects that green fees will fund is the installation of electricity and energy meters on all major campus buildings. Most academic and residence buildings on campus are currently not equipped with these essential tools for monitoring energy use. This prevents the College from being able to supervise energy usage of independent buildings and subsequently makes it impossible to track the progress of any new programs. Without concrete measurements of electricity and energy, it is difficult to identify which upgrades are necessary, and what impact these upgrades have over time. It is also impossible to calculate energy and cost savings that result from such projects. For these reasons, it is essential that electricity and BTU meters (meters of energy from heating, cooling, and water systems) be installed on every major academic building and residence hall on campus before upgrades are conducted. According to Dan Patterson, the Energy Manager of the College, it costs \$1,000 to install each electricity meter and \$8,200 to install each BTU meter. On our campus with 17 major academic buildings and 20 major residence halls, the cost of installing these meters will be \$37,000. The cost of the BTU meters will be \$302,400.

Once electricity and energy meters are installed on campus buildings, renovations and upgrades can be funded by student green fees in order to increase energy efficiency on campus. These initiatives will not only save energy and decrease greenhouse gas emissions, but they will also generate significant cost savings over time. Examples of these projects include installation of LED lighting systems, occupancy sensors, variable speed drives, and vending misers. All of these projects enhance energy conservation and efficiency. According to Dan Patterson, occupancy sensors will cost \$100 for each office or restroom in which they are installed. Variable speed drives, which slow down fan motors in order to adequately address a building's temperature and air flow needs, will cost \$24,000 for the installation of a set of four fans, generating \$5,900 in cost savings each year.

Once these basic energy-saving projects are completed, student green fees can begin funding larger projects such as the installation of green roofs on buildings or on-site generation of renewable energy such as solar power.

### B-Student Projects

This portion of the green fee would create an initiative similar to the Sustainability Fund of New York University's Sustainability Task Force. In 2007 at NYU, 15 grants were awarded to students, faculty, and alumni in order to conduct projects on campus that would further the university's commitment to sustainability. These grants ranged from \$1,000 to \$40,000, depending on the scale and scope of the project. The Sustainability Task Force chooses applicants whose projects demonstrate three core aspects: "likely impact on the campus environmental footprint, ability to be self-sustaining or institutionalized after initial funding, and feasibility and potential for successful implementation." The

projects funded by the Task Force included conducting inventories and audits of campus buildings, piloting an inter-residence hall competition for energy conservation, and converting university vehicles to run on vegetable oil.

The Student Project portion of the green fee at William and Mary would be used to fund similar projects on campus. This would benefit students by providing opportunities for unique research, creativity, and valuable experience. It would also further the progress of sustainability on campus without placing increased responsibility on staff.

#### V. Summary of Support:

To find out how students felt about these matters, we conducted a poll of 1,000 randomly selected freshman, sophomores, and juniors. Out of 415 respondents, 355 (or 85.5%) of students said that they would be willing to support a \$15 increase in student fees, a ratio of 6:1 in favor of the increase. Additionally, 96.9% of students believe that it is of importance for W&M to operate in an environmentally sustainable manner, 48.9% of whom indicated that it is "very important." For complete survey results, see Appendix II.

On March 20, 2008 the student body voted on this issue by means of a Student Assembly referendum, the results of which are shown in Appendix III. 1605 undergraduate and graduate students voted on the referendum, with 1372 (or 85.48%) voting yes.

#### Appendix I: Similar Fee Programs by Other Universities

Name of Institution	Fee Per Semester	Percent of Fees	Annual Funds Raised	Method of Initiation	Projects Funded
Appalachian State University	\$5.00	2.72%	\$134,470	Student referendum passed by 82%	Used to build a biodiesel processor and to install solar panels in streetlights and emergency phones
Connecticut College	\$12.50		\$47,500	Student petitions gathered 75% support in 2001	Purchases wind energy; Funds the work of an Environmental Model Committee
Evergreen State College	\$15.00	9.27%	\$132,000	Student referendum passed by 91% in 2005	Purchases green tags for wind and solar power and funds renewable energy generation
Harvard University	\$5.00	0.36%	\$67,150	Student Referendum passed by 82% in 2004	Purchases renewable energy certificates
Northland College	\$20.00	5.88%	\$28,000	Student referendum passed	Purchased campus Prius; Funds Environmental Center; Will purchase solar water panels
Tufts University	\$10.00	2.33%	\$107,000	Student referendum passed by 88% in April 2005	Purchases wind power
University of Colorado at Boulder	\$14.79	1.95%	\$734,176	Student Referendum passed	Funds initiatives for solar energy, recycling, composting, and energy efficiency
University of Denver	\$9.00	2.65%	\$88,326	Student referendum passed in spring 2005	Purchases wind energy
University of Illinois at Urbana	\$7.00	0.50%	\$432,530	Student referendum passed in 2003	Purchases renewable energy and energy efficient technologies
University of Maryland	\$6.00	0.86%	\$310,284	Student referendum passed by 91% in spring 2007	Proposed to purchase renewable energy
University of North Carolina at Chapel Hill	\$4.00	0.49%	\$141,600	Student referendum passed by 74.5% in 2003	Funded geothermal well and solar hot water system on residence hall roof; Funds building renovations
University of the South at Sewanee	\$22.50	20.27%	\$64,080	Resolution passed in Student Assembly and Faculty Senate in 2004	Purchases renewable energy
University of Tennessee at Chattanooga	\$10.00	1.83%	\$146,320	Students referendum passed in April 2007	Purchases motion detector lights and new recycling containers; Purchases renewable energy; Hired recycling coordinator
University of Virginia	\$7.00	0.75%	\$186,942	Student referendum passed by 87% in 2004	Purchases wind energy credits
Western Washington University	\$15.75	6.54%	\$395,357	Student referendum passed by 84.7% in spring 2004	Purchases renewable energy
<b>Average</b>	<b>\$10.90</b>	<b>4.03%</b>	<b>\$201,049</b>	<b>On average, these referendums passed by</b>	<b>Fees typically purchase renewable energy and fund energy efficiency projects</b>
<b>Proposed for W&amp;M</b>	<b>\$15.00</b>	<b>0.94%</b>	<b>\$225,000</b>	<b>84%</b>	

**Appendix II: Survey and survey results (attached PDF)**

**Appendix III: Referendum results**

<b>Vote</b>	<b>Number of Votes</b>	<b>Total Percentage of Vote</b>
<b>Yes</b>	1372	85.48%
<b>No</b>	233	14.52%

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