Green Fees 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 and 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 undergraduate students (one co-chair)
2 graduate students
4 faculty members
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: A subcommittee within the Committee on Sustainability is responsible for reviewing the projects.

3. This 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	1.32
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. 1,605 undergraduate and graduate students voted on the referendum, with 1,372 (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 biodeisel 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
Average	**$10.90**	**4.03%**	**$201,049**	**On average, these referendums passed by 84%**	**Fees typically purchase renewable energy and fund energy efficiency projects**
Proposed for W&M	**$15.00**	**0.94%**	**$225,000**		

Appendix II: Survey Results

3. How important do you believe it is for William and Mary to operate in an environmentally sustainable manner?

	Response Percent	Response Count
Not important at all	3.1%	13
Somewhat important	17.1%	71
Important	30.8%	128
Very Important	**48.9%**	203
answered question		**415**
skipped question		**0**

4. Would you support the institution of a green fee at William and Mary, provided that it was less than one percent of the general fee?

	Response Percent	Response Count
Yes	**82.4%**	341
No	17.6%	73
answered question		**414**
skipped question		**1**

5. Would you support the institution of a $15/semester green fee for W&M?

	Response Percent	Response Count
Yes	**85.5%**	355
No	14.5%	60
answered question		**415**
skipped question		**0**

Appendix III: Referendum Results

Vote	Number of Votes	Total Percentage of Vote
Yes	1,372	85.48%
No	233	14.52%