

The W&M Eco-Village

Learning Through Living
Sustainably



Committee on Sustainability, April 2010

Generations of W&M Students Have Loved The Lodges

- ✧ Built ca. 1947, part of our memories and history
- ✧ Located at the heart of campus life
- ✧ Seven residences and “The Daily Grind”
- ✧ A visible and unique “teachable moment”



A Wooded Setting



Visible and Accessible



In Need of Repair



Eco-Village: The Concept

➤ Transform The Lodges:

- ✧ A village of aesthetically pleasing, innovative, and low-impact residences
- ✧ Promote sustainable lifestyles
- ✧ Demonstrate the principles of sustainable design
- ✧ Test and evaluate emerging technologies
- ✧ Educate the campus and the broader community
- ✧ Beautify and improve the campus environment

Eco-Village: The Concept

- ✧ Each Lodge can be funded, designed and developed independently as unique and varied examples of sustainable living design and practice
- ✧ Each Lodge creates opportunities for comparative and experimental studies of the behaviors, techniques and technologies of sustainable living
- ✧ Each Lodge becomes a vessel for innovative research and teaching, and together they create a center for learning and outreach that both discovers and informs

Eco-Village: The Rationale

➤ A Teachable Moment

- ✧ Preparing future leaders to address the real-world challenges of the future
- ✧ Leading and teaching by example
- ✧ Instilling life-long habits and practices
- ✧ Educating all facets of the campus and broader community

➤ Opportunity for Research

- ✧ Hands-on experience with new technologies
- ✧ High accessibility and adaptability

Eco-Village: The Rationale

- Sustainability in Higher Education
 - ✧ Opportunity for leadership among peers
 - ✧ Expectations of prospective students
- Current Campus Climate
 - ✧ Broad support for campus sustainability
 - ✧ Large, visible project would inject enthusiasm into student body and incite further change

Eco-Village: The Rationale

➤ W&M Priorities in Action

- ✧ Liberal Arts: bringing together the natural sciences, social sciences, and humanities
- ✧ Internationalization: addressing a global issue with local solutions
- ✧ Research: opportunities for undergraduate, graduate, and faculty involvement
- ✧ Entrepreneurship: working with businesses and researchers to test new technologies

Eco-Village: Student Life



- ✧ Equal opportunity for all students to become a part of learning and research
- ✧ Students as community “ambassadors” of sustainable living at W&M
- ✧ Students carry their experiences into the world

Eco-Village: Research

- Individual Research
 - ✧ Opportunities for theses, independent studies
 - ✧ Research incorporated into residents' lifestyle
- Collaborative Research
 - ✧ Opportunities for class labs and projects
 - ✧ Interdisciplinary in nature: bringing together the natural and social sciences
 - ✧ Research will inform future initiatives at W&M

Eco-Village: Outreach

➤ Community Education

- ✧ Tours for schools and community groups
- ✧ Outdoor communal space for lessons
- ✧ Resource for local families and institutions
- ✧ Applicability to variety of circumstances

➤ Leading by Example

- ✧ Analysis and promotion of best practices
- ✧ Inspiration and resource for peer institutions

Eco-Village: Building Blocks

➤ Energy Production

✧ Exploring new and existing technologies

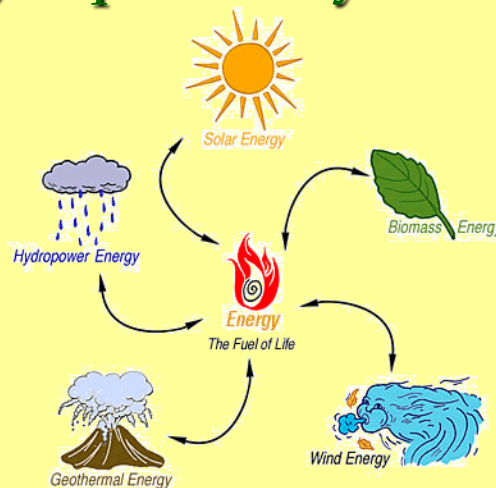
▲ Generation: Solar, Wind, Geothermal, Biodiesel

▲ Storage: Fuel Cells, Deep Cycle Batteries

✧ Moving Off the Grid

▲ Reducing campus carbon footprint

▲ Decreasing dependency on outside energy supply



Eco-Village: Building Blocks

➤ Energy Efficiency

- ✧ The Basics: Insulation, Efficient Lighting, etc.
- ✧ Thinking Bigger: Passive Solar, Green Roofs

➤ Renovation and Building Materials

- ✧ Sustainable waste management in renovation
- ✧ Creative use of reclaimed building materials
- ✧ Innovative interior design: floors, countertops

Eco-Village: Building Blocks

➤ Resource Management

- ✧ Water Conservation: Grey Water Systems, Rain Gardens, Sustainable Landscaping

- ✧ Waste Management: Composting, Recycling

➤ Monitoring and Analysis

- ✧ Data Collection: Energy and Water Meters, Storm Water Quality, Soil and Air Quality

- ✧ Access and Tracking: Public Online Database

Eco-Village: Next Steps

➤ Feasibility Study

- ✧ \$10,000 in green fees funds allocated to prepare a feasibility study and plan to go forward

➤ Fundraising

- ✧ Working with Office of Development to create a development plan and timeline
- ✧ House-by-house funding strategy
- ✧ Opportunities for matching, naming rights

The Meaning of Eco-Village

- A clear statement of purpose and focus of W&M commitment to a sustainable future
 - ✧ Provides a unique environment for innovative research, education and service
 - ✧ Prepares our graduates to lead with knowledge and experience
 - ✧ Engages the W&M community and uses its talents and expertise to address real 21st century challenges



Hark Upon the Green