

Statement on Sustainability
Environmental Stewardship Committee
Calvin College
DRAFT - WORKING DOCUMENT ONLY

Vision

As a confessional community in the Reformed tradition, Calvin College seeks to be caretakers of creation and agents of renewal for creation in our daily lives and as a collective community. The guiding principles in this document are evidence of our desire to live out our pledge of love and fidelity to Jesus Christ, who gave his life so the whole of creation could be reconciled to God. This document is offered in the spirit of encouragement and shalom, rather than legalism, in our desire to do God's work in God's world. In hope and expectation during this present time we avail our lives to God's faithful working out of the coming shalom.

Purpose

Our purpose is to infuse Calvin's vigorous liberal arts education with thoughtful, Biblically based practical guidelines that lay a foundation for living in a way that honors the Creator and his beloved creation. The Reformed tradition recognizes the important role of creation as God's general revelation of goodness and grace. We also recognize our responsibility to interpret, wisely use, and compassionately care for God's creation. In doing so, we take seriously the Biblical mandate to be stewards of God's good earth.

Sustainable living is the daily working out of the stewardship mandate. We seek to live as part of the natural world in ways that mirror the care and love God has for the creation. To live in a sustainable fashion means our daily activities will be conducted in such a manner that they do not seriously jeopardize, but instead promote, the well being of other people, other species, and the ability of future generations of all creatures to flourish. This policy is intended to challenge ourselves to lead lives of increased meaning and purpose, lives that promote healing and reconciliation within creation. We consider this response to be a divine calling, the working out of which will bear fruits of love and hope in our groaning world.

Commitment

To advance sustainability principles in all aspects of our daily operations, an honest assessment of our current practices is necessary. Calvin College already exhibits a genuine commitment of stewardship in many areas of our community life. Yet, we also admit that progress can be made in many other areas. It is the objective of the Environmental Stewardship Committee that this statement will enhance our efforts, in all we say and do, wherever we may be, to further the Kingdom of God on earth.

Intent

This statement is intended to challenge all of us to lead lives of meaning and purpose, lives that promote healing and reconciliation among all elements of the creation. This statement challenges us to move forward and presents many examples and starting points for education and action. We recognize not everything can be done at once, and some of these guidelines will be altered and additional suggestions will be added. We also recognize that tensions may exist between some listed goals, yet we offer this document to assist us all to move closer to the coming shalom.

1. Teaching and Research

Calvin College rightly prides itself on the integration of its Reformed faith with the teaching and research that is conducted here. This integration as it pertains to stewardship is a hallmark of many classes. Yet we encourage principles of stewardship and sustainability to find expression across all disciplines at Calvin. We also encourage more research and scholarship to engage the theological and ethical framing of sustainability principles, as well as the practical working out of this commitment. Our vision is that all of our students, upon graduation, will be steeped in stewardship ethics and thereby motivated to lead lives that honor these principles.

- Develop a Biblical understanding of stewardship as it relates to sustainability activities both in our personal and institutional lives.
- Strengthen and prioritize environmental studies and research.
- Teach energy and environmental literacy to all students.
- Develop a connection to the environment, when people feel connected to and have knowledge about their environment, they will take better care of it.
- Expand opportunities for using the campus physical plant and business operations as a “learning lab” for students.
- Develop community and neighborhood energy and environmental education programs and participate in public dialogue on energy and environmental issues in the wider community.
- Increase opportunities for informal learning about environmental/sustainability issues for students, faculty, staff and public.

2. Purchasing and Administrative Services

Calvin College purchases building material products (such as lumbers, carpet, paint, plumbing, lighting and electrical products, etc), furniture, fixtures and equipment, cleaning and maintenance supplies (such as cleaning solutions, toilet paper, etc), and lawn and landscape products for approximate 400 acres of property and about 2 million square feet of interior space. We recognize that one of our primary methods for exercising our commitment to the environment and sustainability is through our purchasing choices. Through research and policy implementation it is our goal to make environmentally and fiscally responsible purchasing decisions that consider life cycle costs, long term implications and the potential harm to the environment.

- Promote environmentally – friendly product purchasing, i.e., make every effort to buy only products which are durable, reusable, recyclable, made of recycled materials, non-hazardous, energy efficient, sustainably harvested, produced in an environmentally sound manner, etc.
- Develop a practice of repairing/refurbishing durable products.
- Find effective ways to educate the College community about purchasing issues.
- Use the LEED - EB (Leadership in Energy and Environmental Design - Existing Buildings) rating tool to evaluate the sustainability of the operations and maintenance of existing facilities.

3. Solid Waste Reduction and Recycling

Calvin College has a wide ranging recycling program. Currently we recycle office paper, paperboard, corrugated cardboard, books, glass, metal and plastic food and beverage containers, electronic devices, lamps and ballasts, batteries, polystyrene, scrap metal, concrete, used oil and antifreeze. 2005 saw the beginning of efforts to compost organic waste generated from Grounds department activity. Additionally, the college handles and ships hazardous waste in a manner that meets State and Federal guidelines. A recent visit to several comparable institutions by our Grounds Department supervisor shows that we recycle a higher volume and wider variety of items than the other peer institutions. Calvin believes the effort to reduce waste and recycle is biblically based, yet many at Calvin choose not to recycle. With that in mind, we offer the following points to promote discussion and continue to improve the effectiveness of our recycling program.

- Establish a waste reduction ethic in all areas.
- Perform waste stream analysis to determine additional recycling potential.
- Examine ways to make recycling more convenient across campus.
- Enhance our recycling program for paper, cardboard, metal, glass, and plastic.
- Compost organic waste whenever possible.
- Enhance and increase the educational programs on recycling and re-using. Actively promote participation in recycling programs.
- Recycle hazardous waste-containing products, such as fluorescent lamps and ballasts, anti-freeze, solvents, batteries, computer monitors, and TV's.
- Examine ways to minimize the waste that results from the distribution of College publications and mailings.
- Seek to recycle at least 50% of campus waste stream.
- Create energy databases that document energy use and promote energy conservation projects.

4. Energy Purchasing

Calvin College's electrical and natural gas cost exceeds 3 million dollars annually. We recognize the importance of exploring and implementing well thought out and fiscally responsible measures to conserve energy in existing buildings, renovations, and new construction. We continually investigate new technologies for improved energy systems and more efficient use of energy resources. We have used renewable energy resources in the past and will continue to consider their use.

- Use energy efficiency measures to flatten campus load profile to lower electrical rates.
- Utilize Calvin's co-generation system to reduce energy use when fiscally possible.
- Buy green power – renewable energy as feasible.
- Monitor developments relative to alternative energy sources for the future.
- Create residential energy conservation programs with student leader.
- Promote linkage between energy conservation effort with programs to reduce carbon dioxide emissions and contributions to global warming.

5. Water and Wastewater

The college uses over 60 million gallons of potable water annually. We are committed to minimizing the consumption of water through new technology in water use fixtures, such as auto shut off faucets and waterless toilet systems. As with natural gas and electricity, we will continue to explore ways to conserve water in existing building, renovations, and new construction. We will maintain efforts to minimize and control water pollution, striving to protect the bodies of water that receive the wastewater and storm water generated by our facilities.

- Implement water conservation program to repair leaks and retrofit inefficient plumbing fixtures – investigate/install waterless urinals and auto shut off faucets.
- Create residential water conservation plans with Student Leaders.
- Distribute the cost of water usage annually and pursue the latest water conservation technologies.
- Protect ground water and storm run-off by minimizing use of salt for ice-melting.
- Use drought-resistant plantings and minimize irrigation.

6. Hazardous Materials

The college acknowledges the important of the safe management of ignitable, corrosive, reactive and toxic materials. We are committed to the protection of human health and the environment from the potential hazards of waste. We will explore ways to reduce the amount of hazardous materials generated and ensure that waste management is environmentally sound.

- Meet or exceed legal “haz mat” handling, collection, disposal, and tracking requirements
- Educate campus hazardous waste generators about minimization and proper disposal techniques.
- Investigate new concepts for reducing and reusing hazardous materials.
- Undertake toxic use reduction and pollution prevention planning.
- Develop a chemical tracking or inventory database.
- Implement a “chemical swapping” program.
- Switch to non/least toxic paint, solvents and cleaning agents.
- Switch print shop to environmentally friendly inks.
- Develop integrated pest management techniques to minimize or eliminate use of pesticides.
- Recycle and recover ozone-depleted CFCs.

7. Transportation

Calvin College is challenged to find ways to demonstrate our commitment to creation care in transportation choices while existing within a culture that so highly values personal automobile usage. With strong leadership from the student Environmental Stewardship Coalition, Calvin has generously subsidized public transportation for our students, faculty and staff. Modifications to our campus environment have been made to promote bicycle usage, and recent consideration of adjusting parking fees has also emerged from a commitment to exhibit more sustainable transportation practices. While these expressions

provide a solid foundation, we look forward to additional creative solutions that will provide alternatives to the one-car, one-rider model.

- Encourage travel by carpooling, public transportation, bicycling, and walking.
 - i. Provide incentives for walking, biking, busing, and ride sharing
 - ii. Raise parking permit fees.
 - iii. Increase carpooling parking spots.
 - iv. Build bike shelters to encourage bike-riding
- Convert the on-campus services vehicle fleet to hybrid or alternative fuels, e.g., natural gas, electric, and biodiesel. Develop a green fleet goal.
- Maximize housing options on campus to encourage students living on campus and not driving to classes.

8. Food and Food Services

Calvin Food Service (CFS) strives to help its customers (students, faculty and staff) to understand, practice and promote sound environmental policies concerning the reduction of food waste and the promotion of recycling. As a result, CFS works to stay abreast of environmental issues and to implement environmentally responsible policies whenever fiscally and practically possible.

To date, CFS has implemented intensive recycling programs for packaging materials to reduce waste. In partnership with the student Environmental Stewardship Coalition, CFS has supported the “CUPPS” mug program to reduce consumption of disposable beverage cups.

- Buy regional produce in season.
- Support local organic farms.
- Promote less meat consumption and eating “low on the food chain” for health and environmental reasons.
- Minimize the use of disposable dinnerware.
- Work more closely with food suppliers to reduce packaging waste.
- Implement a reusable mug program with discounted drinks at dining halls.
- Participate more actively in programs to contribute excess food to the homeless and needy.
- Investigate composting projects

9. Campus Grounds and Land Use

Calvin College has a beautiful campus. Our 400 acre campus boasts a wide variety of mature and healthy trees. Open spaces and athletic fields are well maintained and are an inviting place for recreation or leisure. The 90+ acre nature preserve provides the community with a striking display of natural beauty as well as a valuable tool for student learning. Other natural areas provide additional wildlife habitat. Landscaped areas provide variety and color, and soften the edges of buildings and parking lots. These elements combined give the campus a stable and welcoming atmosphere. The following points are intended to examine common trends in land use and promote discussion within the community about stewardly management of our outdoor environment.

- Promote discussion of campus beauty.
- Reduce lawn areas and grass cutting.

- Promote “natural succession” for unneeded lawn areas.
- Protect woodlands, wetlands, watershed, and wildlife.
- Implement a tree protection policy.
- Plant native species where possible.

10. Building Construction: New and Renovation

"The built environment has a profound impact on our natural environment, economy, health and productivity. In the United States, (construction of) buildings account for 36% of total energy use, 30% of greenhouse gas emissions, 30% of raw materials use, 30% of waste output (136 million tons annually), and 12% of potable water consumption" (U.S. Green Building Council, 2006). Both initial design/construction and life-cycle planning are important factors to develop sustainable solutions. At Calvin, the amount of construction suggests significant opportunities for improvement, as well as teaching opportunities for students and staff.

- Utilize sustainable or “green” design principles for all new construction and rehabs. Obtain at least a LEED (Leadership in Energy and Environmental Design) “Certified” status relative to Sustainable Site, Water Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality, and Innovation and Design.
- Maximize longevity, remodel or retrofit wherever possible. Restoration, renovation, and adaptive re-use of buildings offer the greatest opportunity for conservation of energy – save the energy to produce, transport, construct, install, and dispose of materials.
- Design state-of-the-art energy efficiency and exceed energy codes.
- Incorporate renewable energy technologies, including day-light and passive solar.
- Include suitable recycling collection space in building design programs.
- Specify environmentally-friendly building materials, products and practices (such as loosening compacted soil around construction sites for drainage).
- Evaluate options based on life cycle analysis.

11. Campus Site Planning

Calvin’s campus is a beautiful blend of park-like landscaping, wetlands, woodlands, and meadowlands. The placement of buildings, parking and pathways, and management of green areas contribute to individual enjoyment, as well as responsible environmental stewardship. The initial Knollcrest Campus design concepts spoke of an “Organic Architecture” approach to fit the “built environment” into the landscape; these sustainable principles add a new chapter to those guidelines.

- Develop campus master plans that minimize negative impacts and disruption of natural ecosystems and surroundings.
- Preserve and enhance green space.
- Protect natural areas from development.
- Concentrate buildings and arrange campus walkways and roads to minimize on-campus driving and create a convenient pedestrian and bicycle campus, i.e., provide bicycle shelters.
- Use water-efficient indigenous plantings, where possible.

- Landscape for energy efficiency as well as aesthetics.
- Make underground systems easily accessible to avoid tearing up landscape

12. Investment Policies

The goal of socially conscious investing by individual shareholders is investment in companies that operate ethically, provide social benefits, and are sensitive to the environment. Because Calvin College currently invests in “funds of funds” rather than picking individual stocks, we have limited opportunities to exert shareholder influence on corporations. That notwithstanding, the college should not neglect opportunities to serve as an “agent of shalom” in evaluating investment options.

- Establish environmental criteria for financial investments.
- Use stockholder influence to encourage environmentally responsible business practices.

13. Outreach.

In many ways Calvin College is uniquely situated to bear evidence of Biblically-based stewardship values to the broader community. Our Ecosystem Preserve stands as a constant visible testimony of our commitment to care for the non-human members of the creation. Many environmentally focused service-learning activities occur outside the campus grounds, bearing further evidence of Calvin’s dedication to creation care. Several scholarly and research efforts provide additional means of expression to a broader population that stewardship is a core value of our faith. We encourage additional outreach activities that expand upon these efforts so that Calvin College becomes increasingly recognized for its love of God and of his beloved creation.

- Expand community service learning efforts to increasingly engage in creation care activities.
- Forge new partnerships with local environmental groups.
- Work to connect environmental justice principles with social justice emphases.
- Promote off-campus programs to our students that focus on creation care.

Appendix

For something to be sustainable it must be able to continue on indefinitely.

“Sustainability could be defined as a process that reduces the long term impact on natural resources and the environment in a cost effective and socially acceptable manner” “Facility Asset Management , Sustainability and Higher Education”, by Jim Sebesta, APPA’s *Facilities Manager*, Vol. 21, No. 1 Jan/Feb 2005.

“Try to imagine a campus that consumes few natural resources, recycles all waste and abandons climate-changing fossil fuels and instead runs entirely on clean, renewable energy sources.” “What is Sustainability?” A reflection on Seven Generations and Beyond,” By Walter Sampson, CEM, LEED, AP, APPA’s *Facilities Manager*, Vol. 21, No.1, Jan/Feb 2005

“What if higher education were to take a leadership role, ...would operate as a fully integrated community that models social and biological sustainability itself and in interdependence with local, regional, and global community. In many cases, we think of teaching, research, operations, and relations with local communities as separate activities: they are not. The process of education will emphasize active, experimental, inquiry-based learning and real-world problem solving on the campus and in the larger community, including government and industry. ...

A campus would “Practice what it preaches” and make sustainability an integral part of operations, planning, facility design, purchasing and investments, and tie these efforts to a formal curriculum.”

“Because the University is a microcosm of the larger community, the manner in which it carries out its daily activities is an important demonstration of ways to achieve environmentally responsible living and to reinforce desired values and behaviors in the whole community. This would include an analysis of the full impact of the throughput of resources and energy at the university, the life cycle impact of all the operations and would embrace a strategy for developing indicators to measure the impact and process in making changes to move to the positive. This will necessarily lead to discussions of issues like energy and water consumptions, recycling, green buildings, transportation of people and goods to and from the campus sustainably preferable purchasing, etc. Transparency is important here. We need new indicators of movement towards sustainability and institutional success because we measure what we value and manage what we measure. As always, the role of faculty and students and connecting these efforts back to student learning, research, and action are critical” ‘Integrating Sustainability in the Learning Community”, by Anthony D.Cortese, Sc.D., APPA’s *Facility Manager*, Vol. 21, No. 1, Jan/Feb 2005.

Resources used:

‘Integrating Sustainability in the Learning Community”, by Anthony D.Cortese, Sc.D., APPA’s *Facility Manager*, Vol. 21, No. 1, Jan/Feb 2005

‘What is Sustainability?’ A reflection on Seven Generations and Beyond,” By Walter Sampson, CEM, LEED, AP, APPA’s *Facilities Manager*, Vol. 21, No.1, Jan/Feb 2005 Sustainability and Higher Education,” by James Sebesta, APPA’s *Facilities Manager*, Vol. 21, No. 1, Jan/Feb 2005

The Environmental Stewardship Committee welcomes input and suggestions for this Statement on Sustainability. Please contact any ESC member listed below with comments and email.

Phil Beezhold	pdb2@calvin.edu	Director, Physical Plant
Henry De Vries	hdevries@calvin.edu	VP Administration
Frank Gorman	fgorman@calvin.edu	College Architect
Kathi Groenendyk	kgroenen@calvin.edu	CAS
Gail Heffner	gheffner@calvin.edu	Provost Office
Henry Kingma	hkingma@calvin.edu	Physical Plant
Rachel Reed	rcr2@calvin.edu	student (2005-6)
Dave Vanette	dlv3@calvin.edu	student (2005-6)
Gerry Van Kooten	gkv2@calvin.edu	Chair, GGES
Dave Warners	dwarners@calvin.edu	Biology