

Glance at the Stewardship Plan

Introduction:

Redeemer University College, being built upon the Christian faith, holds the creation mandate central to the work of the university. Stewardship of environmental resources flows naturally from an understanding of the cultural mandate. In many areas, Redeemer University College has made decisions which reflect this commitment to stewardship. However, there remain many more ways that the institution can build on the personal commitments to stewardship to reduce the negative environmental impacts of the University. As an institution dedicated to the research and education of a healthy, prosperous and sustainable future for all of society, Redeemer University College is an ideal leader in addressing environmental issues. Redeemer has an obligation to operate in a manner that is ecologically and socially sound, as well as economically viable. To do this Redeemer needs to act in a sustainable manner considering all three when making planning and making operational decisions.

In the past decade, increasing environmental awareness amongst the general public has brought many people to ask for more information about their personal environmental impacts. The resulting ecological certification and labelling frenzy can be found everywhere from grocery stores to automobile dealerships is a response to consumer demand. Certification processes have also been developed to recognize and quantify the efforts of schools to reduce the environmental impacts of their operations. In many instances, this means committing to pursue environmentally conscious resource use, and committing to incorporating environmental education into course material.

As students of the institution will notice there is increasing awareness among students about environmental issues. Because the institution is committed to Christian stewardship, we suggest that efforts be made to present what the institution has been able to do, and what the institution is working towards so that faculty, staff and students can pursue stewardship as a community with defined purpose and goals. This report explores Redeemer's environmental successes and goals. Following this model this Report may be effective for promotion of Redeemer University to prospective students as well as conference customers who are conscious of environmental issues. Perhaps, more importantly, implementing a strategic environmental plan will witness to this important part of the Christian calling.

This report represents the beginning of a strategic plan, which recognizes the achievements of the university with respect to environmental stewardship and outlines additional steps to be taken towards environmental stewardship. It is the objective of this report to encourage an excitement, an interest, a movement from all levels of the institution that will recognize the need for a stewardship plan. It is the hope that through this report redeemer will move forward and gather a working committee together that includes staff, faculty, board, community, students, and alumni that are dedicated to developing the environmental stewardship of Redeemer University College.

It is unfortunate that an official commitment to environmental stewardship has not been made by the university before the current trend to 'be green'. However, the important stance which Christians must take in the environmental movement cannot be overlooked. An institutional commitment to stewardship is a unique opportunity for Redeemer University College to provide a Christian response to the green movement:

offering a basis for those floundering in a fad, offering hope to those who are cynical or discouraged all of the while exploring how to tend the earth which does not belong to us.

If Redeemer University College desires to align the institutional practices with the words taught in the lecture hall, to benefit from the increasing consumer interest in stewardship, and to share the Christian perspective on stewardship to a searching world, it would be wise for the University to formally adopt a strategic stewardship plan.

Objectives of this Stewardship Plan

- To recognize each department of Redeemer and Redeemers over all actions and what we are already doing to make Redeemer a more environmentally friendly place
- To protect the natural heritage values of Redeemer's natural areas for academic, research and environmental benefit
- To protect green spaces for educational and recreational uses by city and university community
- To identify other areas on the Campus that should be identified as Redeemer natural areas or be added to existing natural areas
- To determine corridors on campus that will connect one natural area to another
- To make recommendations for the protection, use and management of Redeemers campus
- To produce a list of recommendations for the long term maintenance and viability of Redeemer campus for academic, research and recreational use
- To encourage a committee to be created that would consist of board members, presidents, staff, faculty, students, and alumni that will work on this stewardship plan. Their goal will be to check of the 'next steps' to stewardship and they will plan more steps that need to be addressed.

Vision

- Integrate stewardship into our daily lives as we seek to fulfill the God-given call to be earth-keepers and care for the community
- Help students develop stewardly lifestyles at a pivotal time in their lives
- Emphasize commitment to stewardship in classrooms, community, lifestyle, planning and campus
- Embrace a lasting stewardship vision

Teaching and Research

Achievements to Date:

- Partnership with Au Sable Institute for Environmental Studies
- Development of Environmental Studies Program & Courses
- Incorporation of Environmental studies into liberal arts core requirements
- Stewardship education outreach: Summer Science Education Camp
- Research Program for Students in Environmental Issues and Summer research program in environmental toxicology
- Public lecture by Cal Dewitt
- Stewardship education outreach: Milk and Honey 2008
- Lab instructors have developed microscale lab techniques to make lab activities more environmentally friendly
- Campus clean up in community 2008 awarded \$500 by Steward homes

Next Steps:

- Expansion of Environmental program to include courses in Political Science, Business, Fine arts.
- Formal Development of Community Education Role – including hosting public lectures, workshops or discussions groups.
- Commitment to the environment surrounding Redeemer- community clean ups
- Commitment of Dorms/RA/HA to take pride in campus and clean up – like a dorm clean up
- Green Technology educational development to accompany green technology installation
- Expansion of outdoor classroom opportunities.
- Membership with Sustainable Energy Association workshops for ½ price – find funding for this cost
- Informal Public education through use of signs in Redeemer Natural Areas. Will be part on conservation park money permitting
- Expansion of Natural areas on campus such as an arboretum
- Host a conference dedicated to stewardship
- Expand green house on campus to produce native species to sell or plant on campus
- Host work shops in partnership with the Hamilton Conservation Authority – Eg What goes in the recycling
- Create an outdoor classroom were all disciplines and groups can gather for class or meetings
- Seed collection
- Work with Adopt A Creek with MNR - water sampling
- Butternut Hickory study work with Species at Risk Ministry of Natural Resources
- Inform RA/HA about recycling, compost and environmental practices and create a stewardship booklet that will inform

Waste Management

Achievements to Date:

- On Campus Recycling Program for on campus housing 600L/month
- Expansion of Campus Recycling in the Academic Building with new containers (2007)
- Dorm composting Program (1998)
- Printer Cartridge Recycling
- Market Waste Produce Composting (2008)
- Waste Audit (2008) (economic standpoint)
- Responsible Electronic Waste Disposal Strategy
- Waste Audit (2009) (green house gases standpoint)
- Battery recycling in dorms
- Funding provided for 09/10 for organic and wet waste by food services
- Fibre recycling expanded in 07 includes all paper and cardboard in Luther Court.
- Recycling educational posters and new recycle bins (paper and plastic) and waste bins to separate waste.
- Recycling information available on Campus services website and information distributed to RA's and HA's in training
- Reduction initiative: reduce the amount of water bottles sold at conferences and athletic events by offering water services
- Residences have furniture so students do not have to purchase and then dump furniture at the end of the year
- Old office furniture is sold back to furniture company and resold

Next Steps:

- Formal Food Services organic waste arrangement
- Expansion of dormitory compost to connect with Hamilton Green-Bin program (not offered to institutions yet) or Expansion of on campus compost program
- Possibly create external recycling center where residence bring their own recycling, students would learn how to recycle properly
- Construction of Recycling/waste centre for academic building to organize and sort recycling more effectively.
- Clarifying Recycling Campaign through
- Reduce Garbage
- Reward students for recycling with special collection days
- End of the year clothes and or book donation
- Centralized recycling points for office garbage to encourage responsibility
- Reduce the amount of Hamilton Spectators that are delivered to campus

Food and Services

Achievements to Date:

- Bulk food purchasing and repackaging of berries, meat and other products.
- Fair trade coffee available
- Re-useable shopping bags available
- Recyclable packaging
- Responsible plan for dealing with e-waste
- Disposable kitchen materials have been made available
- Market sells renewable products such as toilet paper and cleaning products
- Sedexo's purchasing practices are to deal with local producers when in season, meat, fruits, vegetables, eggs, milk and other dairy products
- All styrofoam has been eliminated
- All packaging in Food Court is recyclable
- Market carries whole foods, lentils and vegetarian options and any food not carried can be ordered.
- 09/10 fair trade coffee will be available fresh at Market window
- Market Plans to carry more fair trade products
- Food Court will fill up your water bottle
- Supports Lug a Mug-10 cents off your drink
- All food from communal and is used for other recipes therefore very little waste
- Market sells eco-friendly cleaners
- Sedexo has committed to providing more print material to enhance awareness on topic such as local eating, eating low on the food chain etc.

Next Steps:

- Promote the local food, fruits, vegetables and meat being sold in the market
- Local supplier partnerships
- Stock foods with less packaging
- Have no plastic shopping bags available
- Phase out disposable utensils, cups and dishes at events.
- Reduce bottled water on campus promote a lug a bottle campaign
- Paper reusable shopping bags
- Market could provide packaging boxes for the purchaser to carry groceries in (No Frills)
- Educate and remind students that everything sold at William's can be recycled
- Expand on Fair Trade products
- Campus community garden could assist on and off campus students in purchasing local foods
- Support organic producers
- Education of students on topics of eating locally, low on the food chain, reusable mugs
- Educational displays in Market eg. Benefits of eating local, what in the Market can be recycled,

Electricity and Natural Gas

Achievements to Date:

- Light retrofit – change from T12 to T8 and T5 Fluorescent bulbs internally, and 400W metal halide to 200 W CFL lights externally.
- Switch to compact fluorescent light bulbs, and LED exit signs
- Automated lights to turn on/off when needed in bathrooms and Peter Turkstra Library upstairs addition
- When computers not in use to reverts to hibernation mode and saves energy
- Energy audit with the focus of green house gases
- T5 Fluorescent lighting in gym was installed
- Money set aside for the next 20years by student council for a membership in the Ontario Sustainable Energy Association
- Thermostats in ACAD building: programmed setback during after hours
- Remotely programmable thermostats in dorms may be biggest electricity saver in the summer (reduced A/C use)
- Wattstopper Programming: lighting controls including programming and motion sensors in offices of South Wing.
- Bathroom fans on Timers: all bathroom fans are on timers, reducing make-up air requirements during non open-building hours; in dorms, cannot be left on.
- Lights in athletic change rooms on sensors
- Lights in “interior street”: placed on photocells to reduce on hours during daylight hours (upstairs & downstairs)
- Old dorm furnace replacement: recently replaced remaining 17 old furnaces during peak winter months; efficiency increase from 78% to 92.1%.
- 09 – Phase 4 of replacing HVAC units

Next Steps:

- Aug Hall desk lamps- energy efficient bulbs
- Appliance replacement (energy and water) ENERGY STAR
- New energy/water efficient washers and driers ENERGY STAR
- Explore sub metering of buildings on campus
- Improved insulation
- Window sealing
- Reduce heating and cooling needs - adjusting the temperature of the building to better reflect the seasons.
- Turn computers off when not in use, computer operational energy reduction initiative
- Purchase sustainable energy
- Renewable energy source on campus
- A carbon sequestration program such as a tree planting initiative
- Rewire lighting in Auditorium
- Replace halogens with LED's in Art display
- Replace HVAC units

Water

Achievements to Date:

- 08 - replaced 134 shower heads with units that use ½ as much water
- 08 - replaced 78 kitchen aerators with more efficient units
- 08 - replaced 132 bathroom aerators with more efficient ones
- Only water vegetation when first planted and not continually
- Augustine Hall toilets 6 L/flush
- Long taps installed in new washrooms to allow people to fill up their own water bottle

Next Steps:

- Consider replacing the dorms and independent apartments' toilets with low water units
- Flush valves and possibly toilets and urinals in the Academic building should be replaced with low flow
- Investigate grey water system
- Explore compostable toilets
- Repair water leaks effectively
- Showerheads and bathroom taps in athletic center

Operational Supplies

Achievements to Date:

- Green cleaners changeover by Janitorial department (2005)
- Energy efficient monitors and computers set to enter sleep mode (2007)
- Organic-fair trade Redeemer T-shirts (2008)
- Long lasting locally made Crate Designs Furniture

Next Steps:

- Waste free events- no plastic cutlery etc. or make recycling available and clearly labelled
- Eco printers
- Commitment from offices, admissions and professors to conserve paper
- Commit to more sustainable paper sources
- Department Creativity!

Transportation

Achievements to Date:

- Bus Service to the Campus
- Bicycle parking expansion (2007)
- Staff and student carpooling
- Time out announcements for carpooling
- Bus route expansion (2010)

Next Steps:

- No Idling Education campaign
- Further encourage walking, biking and carpooling, support with friendly competition
- Bicycle Program – rental, servicing club etc.
- Orientation to bus system for students at the beginning of the year
- When new vehicle needs to be purchased think fuel efficient
- Invest in electric golf carts next purchase

Grounds Management

Achievements to Date:

- Mostly pesticide and fertilizer free
- Reduction of mowed area
- Electric transportation and sometimes even bicycles!
- Compost program assistance and use of residence compost in gardens
- Some efforts to identify and eliminate non-native species
- Ecological Management Plan written.
- Community Garden
- Plants 20 trees a year with good spacing
- Siberia Parking lot is gravel

Next Steps:

- Plant native plants, shrubs, tall grass, and trees
- Plant blue spruce at road side as a salt buffer
- Find alternatives to gas powered leaf blower and reduce gas powered lawn mower use
- Enact ecological management plan for naturalisation of retention pond and initiatives for hedgerows etc.
- Apple tree maintenance- care for and promote the orchard as a source of food for students
- Expansion and Improvement to Community Garden
- Naturalize water retention pond at the back of campus
- Wetland development plan for the lawn at the front of campus
- Plant an arboretum on campus
- Control invasive species – garlic mustard
- Plant wild flower gardens that will spread seed, feed animals, and look pleasing
- Plant small pockets of natural tall grass
- Buffer needed around Whaley Teaching Garden along with expansion and clean up (fence removal)
- Create corridors of natural areas on campuses
- Create natural buffers around natural areas especially ponds (no willows) - berry shrubs recommended
- Bird boxes, bat boxes, duck boxes
- Research and monitor ponds, conduct a botanical inventory, natural area inventory, soil type inventory
- Natural recreation eg. paths on campus, tic tac toe naturalized, apple festival

Future Expansion and Planning

Achievements to Date:

- Campus plan with minimal driving
- Formation of Ecological Management Committee
- Ecological Management Plan created by Hamilton Conservation Authority
- Stewardship plan presented to the Board of Governors and approved Ecological Sustainability Action Committee

Next Steps:

- Solar panels or wind power for the building, or buy power from a company that sells alternative energy such as: wind, solar, geothermal etc.
- Recruit more members of the Ecological Management committee from all levels of the institution and community partners
- Investigate grey water systems and implement them in any new buildings and potentially the existing ones
- Green roof for any new buildings and potentially the existing ones
- LEEDs certified new buildings and additions
- Restructuring of the ecological management committee.
- Incorporate the use of natural systems into the new buildings
- Consider using recycled materials to construct the new building.

Concluding thoughts:

This is just the beginning of a comprehensive environmental stewardship initiative which Redeemer University College should pursue as an integral part of operating a Christian Institution.

It is encouraging to learn about the environmental efforts of Redeemer University College as an institution and from the individuals that inhabit it. It is important that we keep this initiative to be stewardly active through out all departments and at every level of the institution. Look at this report as a base that can be reformatted and expanded upon by the ecological sustainability committee that includes staff, faculty, board, community, students, and alumni that are dedicated to developing the environmental stewardship of Redeemer University College. (see Alfred Mazereeuw if interested in joining)