ROYAL ROADS UNIVERSITY

SUSTAINABILITY PLAN

December 2008

OVERVIEW

A Challenge for Our Time

The complexity of economic and public policy – shaped as it is by world events, far-flung capital markets, political fortunes, and social demands – means that issues rise and fall in public significance and scope according to global forces and local resonance.

In recent years, nowhere has this been more apparent than with the challenge of sustainability – with one notable difference. It would now appear that safeguarding the environment is on the public's radar as no other issue has been for decades, lending new urgency to worldwide business, government, and community actions to preserve a planet over-burdened by consumption and resource depletion. Even in the very challenging economic times that we now face, it is clear that Sustainability and Environment are still high on the public agenda.

If sustainable development is to mean anything, it must act as an integrating concept. In particular, it is clear that the social dimensions of sustainability must be integrated with the biophysical dimensions. This is the central message of the Brundtland report[1] and it is no less compelling now than in 1987. Developments over the intervening period have made it clear just how difficult this will be. But it is also increasingly obvious that solutions that address only environmental, only social or only economic concerns are radically insufficient. What is needed is a form of transdisciplinary thinking that focuses on the connections among fields as much as on the contents of those fields; that involves the development of new concepts, methods and tools that are integrative and synthetic, not disciplinary and analytic; and that actively creates synergy, not just summation.[2]

Against this backdrop, we believe that Royal Roads University (RRU) has a unique role to play based on its innovative history, unparalleled physical location, and strategic direction. The university may be only one of many Canadian post-secondary institutions with programs and research focused on environmental science and stewardship, but a pledge to lead in sustainability is not a new path for RRU. It is a re-awakening.

Founded in 1995 as a special purpose university – with a commitment to create access for working people to applied and professional programs through online delivery – sustainability was and remains one of four founding pillars that also include leadership, conflict resolution, and entrepreneurship.

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[1] "Our common future: The World Commission on Environment and Development", Oxford, Oxford University Press (1987).

[2] Robinson, J. (2004), "Squaring the circle? Some thoughts on the idea of sustainable development", Ecological Economics, 48, 369-384.

Five years after the university's creation by the B.C. Government, the Board of Governors passed the Environmental Stewardship Policy committing Royal Roads to be a global leader in environmental sustainability. Five years after that, the Board approved a Corporate Social Responsibility Policy in which, among other things, the administration was tasked with "conducting the University's activities in an environmentally sustainable manner."

These policies, together with the president's 2007 delegation of responsibility for campus sustainability to a member of the executive team – the associate vice president and CIO – provide the means for RRU to renew its momentum on sustainability. The issue of environmental leadership is made more acute by the fact of the university's location on a campus of outstanding natural beauty, historical heritage and ecological sensitivity.

Such impetus is further driven by the B.C. Government's aggressive policy stance on climate change and legislation requiring a 33 per cent reduction in provincial greenhouse gas emissions (GHG) by 2020. To speed this achievement, the government has decreed that public institutions must be climate neutral by 2010. And The University Presidents' Council (TUPC) has signed a declaration that commits members to develop comprehensive GHG strategies, including emission reduction targets, inventory audits, and specific climate action plans.

Yet while legislation constructs a framework for undertaking key environmental initiatives, leadership in sustainability must be derived from an institution's own strategic choices, service mandate, business imperatives, and market purposes. In this sense, Royal Roads University is already ahead of the curve.

STRATEGIC LINKAGES – PRINCIPLES AND GOALS

At RRU, we are determined to act on sustainability leadership because we see climate change as one of the most critical challenges of our time. Responding to this environmental imperative will also present economic benefits over the long-term as we reduce our operating costs, and social benefits by improving the quality of life in our buildings.

Sustainability is not only intrinsically linked to RRU's teaching and research mandate, it is a challenge that calls for the kind of interdisciplinary and collaborative problem-solving at which Royal Roads excels.

More so, leadership on sustainability issues underpins the commitment we provide to working professionals in B.C. and across Canada: to impart leading-edge expertise, demonstrate tangible and measureable actions, and be an innovative post-secondary leader. In addition, sustainability is a key theme in our overseas courses e.g., China thereby helping those countries adopt a more sustainable future.

This sustainability plan is consistent with that vision. It integrates place, purpose and leading-edge practice – drawing on key elements of the campus sustainability plan, our quality environmental programs, research into sustainable communities and societies, RRU's own business practices, and community and employee engagement – to outline a way forward commensurate with leadership.

In January 2008, Subject to financial analysis and resources, the Board approved the goals of a sustainability plan to:

- by 2020 reduce net GHG emissions by 50 per cent from 2007 levels;
- be climate neutral by 2010;
- go “off-grid” by 2018 (self sufficient in energy, waste, water), and
- learn from our experiences to identify best practices and be a leader in sustainability.

In addition, the Board of Governors approved the following principles to guide RRU planning and decision-making:

- Reduce, Reuse, Recycle;
- limit development to disturbed areas;
- ensure compact efficient footprint;
- be pedestrian friendly;
- practice active and passive green building design;
- use local and sustainable resources;
- respect heritage designation;
- anticipate, lead and support Ministry of Advanced Education and B.C. Government sustainability goals;
- incorporate sustainability in all learner programs;
- support sustainability research and incorporate this in our community engagement initiatives;
- reduce overall carbon footprint, and
- be fiscally responsible.

This plan incorporates these principles and goals by highlighting the key initiatives embedded in the Campus Master Plan and documenting RRU’s leadership commitment in the areas of learning, research, and community engagement.

It includes a comprehensive action map listing initiatives, timelines, and unit of responsibility. Preliminary financial costing is found in relevant sections – however, more analysis will be required to fully cost the capital and operating expenditures, projected revenue and savings.

Finally, the plan includes a detailed appendix of documents and reports that provide the specifics of the strategic direction to be undertaken.

We have the necessary interdisciplinary expertise residing in our faculty and staff, the ability to draw on a wealthy pool of diverse practitioner expertise of former graduates, excellent relationships with community partners who are willing to participate in our ‘experiment’, and our size allows us to be more flexible and become one of Canada’s first truly sustainable campuses.

THE SUSTAINABLE CAMPUS

KEY INITIATIVES

The following section lists five over-arching initiatives embedded in the university's ambitions for a sustainable campus.

The initiatives are being developed against the backdrop of BC's Climate Action plans, including:

- Bill 44: Greenhouse Gas Reduction Targets Act
- Bill 27: Local Government (Green Communities) Statutes Amendment Act
- Bill 18: Greenhouse Gas Reduction (Cap and Trade) Act

These initiatives reflect a core commitment to sustainability: a process of change in which the responsible use of resources, orientation of technological development, direction of business, and transformation of people and organizations are aligned with present and future human needs.

In committing to sustainability, Royal Roads is equally committing to fiscal responsibility through greater resource productivity, lower environmental impact, enhanced innovation in teaching, research and business practices, and improved employee and community engagement. We also recognize the limitations of this plan with respect to broad definition of sustainability, this "Phase 1" plan, clearly places a greater emphasis on the "green campus". We believe that there are significant social and economic benefits to this but also know that as this plan evolves we need to place more attention, particularly to the social and community dimensions of sustainability.

Much of this begins with place – the remarkable property and National Historic Site that is the campus of Royal Roads. Unique for its cultural and environmental beauty, the land – after more than 10,000 years of First Nations inhabitation and about 150 years of European settlement – remains mostly pristine old growth forest, creek waterways, and wetland.

As such, the Royal Roads campus represents both a responsibility and a privilege. Charged with its stewardship and safekeeping by our landlord, the Department of National Defence, and presented with the opportunity to develop a living-learning laboratory for sustainability, RRU has a singular chance among post-secondary institutions to link education to practice to policy on behalf of British Columbians.

INITIATIVE ONE – GREENHOUSE GAS MANAGEMENT

Royal Roads is committed to developing a comprehensive strategy to reduce greenhouse gases (GHG) and realize its annual KPI target to reduce the university's carbon footprint. In support of

this we have signed The University Presidents' Council of BC Climate Action Statement[3]. This commits the University to:

1. Initiate a comprehensive plan to reduce GHG emissions by creating a planning body that includes students, staff, faculty, researchers, administrators and other partners to set emission reduction targets in accordance with each institution's jurisdiction.
2. Within one year of signing, complete a comprehensive inventory of all GHG emissions on campus.
3. Within two years of signing, set targets, and develop an institutional climate action plan that engages each institution's research, education and operations into a comprehensive strategy that catalyzes solutions for climate change.
4. Immediately, implement selected tangible actions to reduce GHG emissions.
5. Work cooperatively with governments, civil society, the business community and other institutions of higher learning to contribute to global climate change actions in recognition of our responsibility for equitable solutions.

Until recently, no baseline investigation had been undertaken to determine the major sources and quantities of GHG emitted by RRU – either directly through its own operations (i.e. purchase of natural gas) or indirectly through sources not owned or operated by the university (i.e. airline flights that learners or staff take to attend Royal Roads programs and residencies).

To address this, a team of undergraduate Bachelor of Science students[4], supervised by faculty member Charles Krusekopf , undertook an audit in 2006/07 to identify major sources of GHG emissions and recommend options for their reduction and off-setting.

Recommended options to reduce or offset GHG emissions included reducing staff travel, expanding the Sustainability Action Fund for the Environment (SAFE, in which carbon off-sets are purchased, with funding matched by the RRU Foundation for energy efficiency and sustainability initiatives), occupancy sensors; encouraging alternative transportation; LEED building certification; increasing online courses; insulation upgrades; and green power credits. The students also strongly recommended the re-establishing of the environmental co-ordinator role to ensure progress on GHG emission reductions.

In the 2007/8, another student team[5] assessed three different calculating methodologies and confirmed the findings of the previous year's work. Based on an assessment of the calculating tools that were used, the results from the GHG Protocol (World Resources Institute) calculating method were chosen as the most accurate, reproducible, and transparent. These results indicate there was an increase of 441 MtCO2e, or 19.3% by RRU between the two years (see Table 1 and Table 2). The report recommended more natural gas metering for buildings and

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[3] Uhttp://www.tupc.bc.ca/publications/Final-TUPC-Climate-Change-Action-Statement-Mar-11-08.pdfU

[4] Team Collabor8 – Bradley Agnew, Tricia Bloomfield, Daris LaPointe, Paula Zettel, and Kyle Taylor

[5] 4-Sight Consultants – Josie Gilson, Nadine Jarry, Nicole Sagan, Austin Tokarek and Iain Walkley

operations, considerably more accurate travel reporting, investigation of monetary offsetting, more curriculum integration to encourage behavioural change, the use of innovative technology to produce energy and power and a caution on the use of ecosystem restoration for carbon credit.

TABLE 1: EMISSION SOURCES AND QUANTITIES AT RRU

Scope[6]	Emissions Source		2006/07	2007/08	Difference	Units
1	Natural Gas		22,091	26,793	+4,703	GJ
	Furnace Oil # 2		10,671	12,070	+1,399	L
	Fleet Vehicles	Gasoline	24,368	19,553	-4,815	L
		Diesel	1,319	941	-378	L
2	Electricity		4,511,525	4,015,694	-495,831	kWh
3	Commuter Travel		182,137	195,486	+13,349	L

TABLE 2: GHG EMISSIONS BY SCOPE

Scope	GHG Protocol 2006/07 ($MtCO_2e$)	GHG Protocol 2007/08 ($MtCO_2e$)
1	1,242	1,437
2	135	121
3	944	1,169
Total	2,286	2,727

[6] Scope 1, 2, and 3 are based on the WRI definitions. *The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard,* page 27. Uhttp://www.wri.org/publication/greenhouse-gas-protocol-corporate-accounting-and-reporting-standard-revised-editionU.

Scope 1: Direct GHG emissions (e.g. combustion in furnaces and vehicles)
Scope 2: Electricity indirect GHG emissions (e.g. purchased electricity)
Scope 3: Other indirect GHG emissions (e.g. sources not controlled by RRU, such as commuter travel)

Many of these initiatives are now being further studied and will be incorporated into a long-term Greenhouse Gas Management Strategy by the administration. For example, initiatives outlined below for RRU to become "grid-positive" and actively manage transportation demand will address the university's carbon footprint and achieve "climate neutral" status by 2010 and reduce GHG emissions by 50 per cent by 2020 from 2007 levels.

ACTIONS :

Special Meeting of the Heritage and Environmental Stewardship Committee to Discuss Climate Change Strategy (February 2009)

Continue to complete a yearly comprehensive inventory of all GHG emissions on campus. Include and analysis of our educational model (blended vs traditional) and work from home. (Yearly by September)

Set targets, and develop an institutional climate action plan. (October, 2009)

Immediately, implement selected tangible actions to reduce GHG emissions. (in progress)

INITIATIVE TWO – GOING "GRID-POSITIVE"

The generous gift by Robert Bateman of his art and archives to Royal Roads University – and the resulting commitment to build and operate the Bateman Centre for Art and Environment Education – has compelled the university to re-think the campus planning undertaken in earlier years and re-imagine the university as a showcase of environmental stewardship. We are committed to making the Bateman Centre as close to a living building as possible and to use it as forum to exhibit sustainable practices.

Richard Iredale Architects, the firm responsible for designing the Bateman Centre, has been retained to develop a Master Plan for the built environment at RRU incorporating the key aspects of sustainability. Key to this plan has been the multi-disciplinary study undertaken by Worley Parsons Komex and Farallon Consultants on sustainable sources of energy for the campus.

Through previous initiatives, RRU has reduced its annual consumption of energy from a high value of 360 kWh/m^2 in 2001 to a value of 250 KWh/m^2 in 2006 (30% reduction). In considering options for alternative energy supply, it has become clear that the smallest economically viable alternative energy system would produce more electricity and heat than the university would require, even when taking future campus development into account.

This allows Royal Roads to not only go "off-grid" as per its original goal, but enables the university to be "grid- positive" – thereby creating a possible revenue stream by selling surplus energy to local purchasers, such as the municipality of Colwood or nearby residential developments now being constructed or planned.

There are three sustainable energy approaches under consideration:

1. Build a small-scale co-generation facility on campus and gasify wood waste.

Through this process, Royal Roads could generate sufficient electricity and heat for its own use and others. In July, the university took the first step in finding a partner to build such a facility by posting on BC Bid a request for expressions of interest (RFEOI) in designing and operating a gasification plant. This type of technology represents the next generation of the same energy source being used at Victoria's Dockside Green. While the Dockside Green gasifier will produce heat, the gasification system under consideration by the university will produce both heat and electricity. The carbon emission credits will be available for sale, and could produce another revenue stream for the university.

2. Construct a small-scale facility on campus that would use and divert community compostable waste from the Hartland landfill site.

While some methane is captured at Hartland, the majority of emissions escape, contributing to challenges of global warming and climate change. Methane can be converted to electricity and heat through a biogas digestion and co-generation process. As yet, the university is not exploring this approach with any partner, but it holds benefits for reduced regional greenhouse gases and an additional RRU revenue stream from sales of energy.

3. Locate a small wastewater treatment facility on campus that could also serve the needs of Langford and Colwood and potentially help reduce the cost of community sewage and wastewater management facilities.

After treatment, wastewater can be used to provide energy for space heating through heat pumps. RRU is in early discussions about such a project with a private company and the Capital Regional District.

In addition to the benefits of enabling RRU to generate all its own energy each of these projects would add to research and learning opportunities for Royal Roads students and faculty. They would also generate carbon emission credits significantly in excess of our current carbon footprint thereby completely satisfying government requirements with respect o Initiative 1.

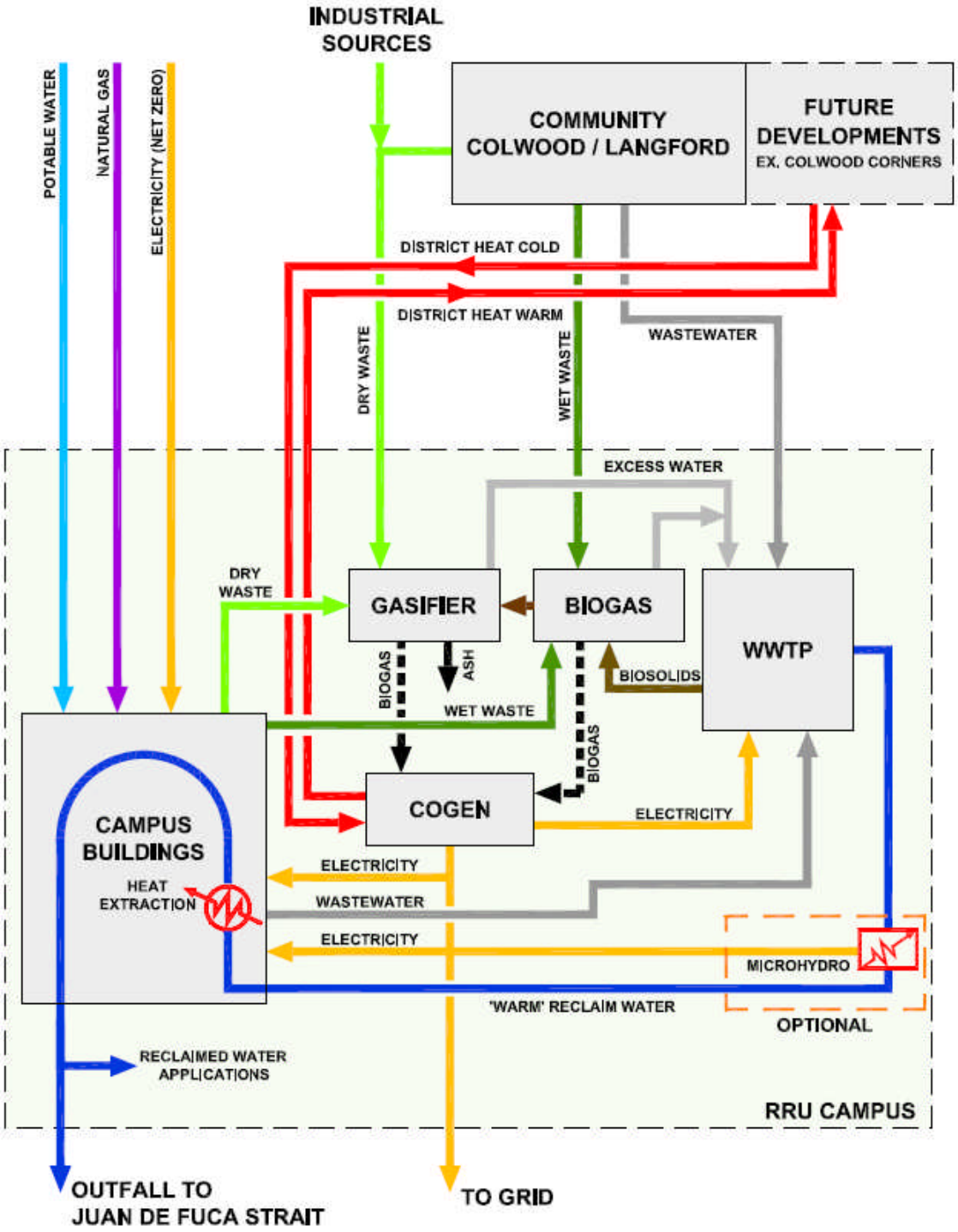
Furthermore, these projects support the sustainability goals of our local community. There is a potential market for heat energy from local residential developments, which are within distance for a district heating network. The university would strengthen its relationship with the community by exchanging waste for resources and by turning several environmental liabilities into assets.

To this end, Royal Roads is considering an integrated *Waste and Energy Recovery Research Centre* to be built on a previously disturbed site on the campus. The Centre could feature resource recovery facilities on the ground level with classrooms and offices on the floors above, thereby integrating education and sustainability while potentially attracting visitors interested in the operational, economic, and governance aspects of alternative energy. The Centre would:

- Engage with the private sector to showcase innovative technology

- Demonstrate the value of an integrated approach to managing waste and resources. Figure 1 below shows some of the physical interrelations among the components of the proposed Water and Energy Recovery Research Centre
- Provide biomethane from waste, a greenhouse gas-neutral fuel which can replace fossil fuels in vehicles (e.g. transit buses)
- By providing a source of revenue to the university, demonstrate that an intelligent and integrated approach to waste and energy can be both economically and environmentally sustainable
- Undertake research and education with an emphasis on the social science of community change to sustainable practices e.g., document the process of overcoming the implementation barriers of the Centre.
- Support the Province in climate change action, public engagement and outreach
- Model a significant reduction of carbon use for the West Shore community
- Achieve a grid-positive campus

FIGURE 1: PROPOSED WASTE AND ENERGY RECOVERY CENTRE



The centre would be underpinned by an integrated business model that would see sales of green electricity, heat, and greenhouse gas credits contribute to the university's bottom line. It is expected that public funds would contribute to waste water treatment plant costs and that

Royal Roads would not experience difficulty in attracting investment or partners for the potential cogeneration facilities. Funding is also possible through agencies and programs that support sustainable infrastructure.

If approved by the Board of Governors, a full feasibility study – together with a comprehensive stakeholder relations plan – will be required. The project can be phased over many years or individual components dropped or added. The University is proceeding slowly and has issued a Request for Expression of Interest for the gasification component of this strategy.

ACTIONS:

Complete the RFEOI process in progress and work to develop a detailed business plan (October 2008) for the small scale wood waste co-gen facility (Component 1 of the Waste and Energy Recovery Centre).

Investigate more thoroughly the feasibility of anaerobic digestion and waste water treatment as energy producers(Components 2 and 3 of the Waste and Energy Recovery Centre). (October 2009)

INITIATIVE THREE – DEMAND MANAGEMENT OF TRANSPORTATION

In 2006/07, RRU commissioned a transportation demand management (TDM) study from Boulevard Transportation Group to address current transportation issues as well as future needs for pending increases in learner and visitor trips to campus.

The TDM report investigated and recommended strategies to address parking management, traffic circulation, and transportation demand management measures. The objective was to achieve environmental and economic goals by reducing the need for infrastructure upgrades and managing future growth and associated trip management.

In the case of the RRU campus, the site's unique environmental and historical attributes – such as the old growth forests and Hatley Castle – force the university to limit the size and function of its internal transportation network to one-way roads and minimal facilities for parking.

The recommended strategies sought to mitigate the negative impacts associated with increased vehicle traffic while accommodating future growth on-site, including a new academic building, an accommodation and conference centre, and increased tourists to Hatley Park National Historic Site.

Since the study was completed in March 2007, several changes have come into play.

Discussions with the developer of the proposed accommodation and conference centre have been halted given the university's decision to consider new off-site residential developments to meet its future accommodation needs. And as the focus on design and construction of the Bateman Centre brings to light emerging opportunities in terms of projected visitor traffic and environmental sustainability, the expectations for campus tourism have also changed.

Nonetheless, the Boulevard study – which provides important background context for the Bateman business case and planning related to the new Learning and Innovation Centre – is still relevant in a number of areas. The administration continues to study and factor in the recommendations, scoped out below, in campus planning, while adjusting the analysis for the continuing evolution of capital expansion needs.

Boulevard Recommendation and Current Analysis

Establish a realistic travel modal split benchmark - Currently, approximately 90 per cent of individuals arrive on site via single occupant vehicle, with 4 per cent taking transit, 3 per cent ridesharing, 2 per cent cycling, and 1 per cent walking.

To meet sustainability goals, RRU needs to work towards reducing the number of commuters driving alone to the site, while increasing the modal share of individuals taking transit, ridesharing, cycling, and walking. RRU's unique role as both a university *and* a tourism destination – the latter role giving rise to distinct expectations – emphasizes the challenge of setting a realistic modal split benchmark and an action plan and timeline for achieving it.

Working with the Royal Roads University Student Association, discussions have been initiated with BC Transit to examine improved bus service to the campus and a discounted bus pass for on-campus learners and employees. As noted above, transportation analysis within the Bateman business case will examine the impact of increased tourists and their needs.

Re-route traffic circulation and re-name select roads – Boulevard recommended that traffic circulation around campus should be one-way with inbound traffic using West Campus Road (toward the future site of the Bateman Centre) with outbound cars and shuttles using Serpentine Road, and outbound motor coaches using University Drive.

The intent – with both the re-routing of traffic and the re-naming of roads with "tourist" themes or "university" themes – is to separate the attraction portion of the campus from the core academic areas. Here again, the Bateman Centre business case will focus on analysis for future traffic patterns.

Parking lot consolidation – A key recommendation in the report called for parking lots to be consolidated to the edge of campus, with lots in the core campus decommissioned, thereby minimizing vehicle movement on-site and establishing a largely auto-free environment conducive to pedestrian activity.

Limiting parking lot choices are under examination by the administration in view of capital expansion plans.

Campus planning – Decisions as to what university functions may move outside the core campus area to the top of the campus closer to Sooke Road will be undertaken as part of the planning for the Learning and Innovation Centre.

The intent would be to move those services frequented by short-term vehicles. This could also apply to service vehicles such as couriers and mail trucks so as to decrease the number of vehicles driving into the site.

Shuttle service – In alignment with the above recommendations, a shuttle service would be implemented to serve all campus patrons – university staff, learners, and visitors – and would have regular routes from the main parking lot(s) to the Bateman Centre, the academic buildings, and Hatley Castle.

Parking management – Boulevard recommended that Royal Roads consider investing in some of the new green technologies for parking lots that have proven to be an efficient and environmentally sustainable alternative to concrete or asphalt.

The consultants also noted that limiting parking in the core campus would encourage commuters to consider other transportation alternatives and suggested that the School of Environment and Sustainability take a lead role in educating university staff and learners about the merits of a green campus.

Implement new parking fee structure – Increased parking fees would likely encourage use of alternative transportation modes, such as ridesharing, cycling, taking transit, or walking. While this is actively under consideration by the administration, it is closely tied to discussions with BC Transit on improved bus service to the campus.

Visitor Services – Boulevard recommended that the main tourist entrance for the gardens be relocated to the west side of the attractions area, opposite the then-proposed accommodation and conference centre, and that a visitor drop-off area be established. The consultants felt this would allow the attractions (Castle, Garden, future Bateman Centre) area to be served as much as possible with the existing road base, thereby minimizing costs and environmental impacts.

While the ACC is no longer under consideration, this plan would serve the needs of the Bateman Centre, which is proposed for location at the west side of campus.

Transportation demand management measures – Boulevard concluded its recommendations with a number of additional measures designed to reduce the number of vehicles arriving on campus. These measures included establishing a transportation demand management co-

ordinator, improved cycling facilities, improved walking facilities, improved transition facilities, promoting and encouraging ride-matching services, and car-sharing options or fleet vehicles.

ACTIONS:

Decision	Priority (based on cost/feasibility and impact/result)	Time
Establish a realistic travel modal split benchmark	LOW	December 2009
Re-route traffic circulation and re-name select roads	MED	July 2009
Parking lot consolidation	HIGH	November 2009
Campus planning	HIGH	January 2009
Shuttle service	LOW	As required
Parking management	MED	July 2010
Implement new parking fee structure	HIGH	September 2009
Visitor Services	MED	July 2010
Transportation demand management measures	LOW	December 2009

INITIATIVE FOUR – ECOLOGICALLY-SENSITIVE SITING AND HERITAGE CONSERVATION

After more than 10,000 years of First Nations inhabitation and about 150 years of European settlement, the Royal Roads site today remains mostly pristine old growth forest, creek waterways, and wetland. The Upland portion of the site, along Sooke Road, forms part of the granite Colwood escarpment. From there the site drops southward 45m along a 1.2 km wide 15% sloping forestland to meet a 1.5 km wide marshy wetland running out to Esquimalt Lagoon.

The campus forms an academic village arranged in an east-west corridor along College Drive. Each building has inspiring views to the south over the wetland, the Esquimalt Lagoon, and the Strait of Juan de Fuca and Olympic Mountains.

The marshy wetland is traversed by three spring-fed creeks that run year-round. These streams of pure, cold water emerge from under the Granite Colwood Escarpment just below the

Benchland, and originally formed shallow, marshy pools that provided rich fish and bird habitat and annual salmon spawning grounds. A larger river, Colwood Creek, drains the West Hills to the north of Colwood, and runs year-round through a beautiful valley marking the eastern edge of the site.

The presence of so much year-round freshwater has made the land one of the most ecologically interesting and alive places on the south shore of Vancouver Island, and it was for this reason that First Nations inhabitants built their coastal villages here for much of the past ten millennia.

Royal Roads University is an educational institution set in a significant national historic site. Future growth of the campus must be directed so as to maintain and strengthen the character and identity of its location and to integrate future development within this context. Over the next decade and beyond, Royal Roads will maintain and enhance the extraordinary heritage and environmental attributes of the site, while redeveloping some existing buildings and developing new facilities that complement this remarkable place. This will be done as the university advances its educational mission.

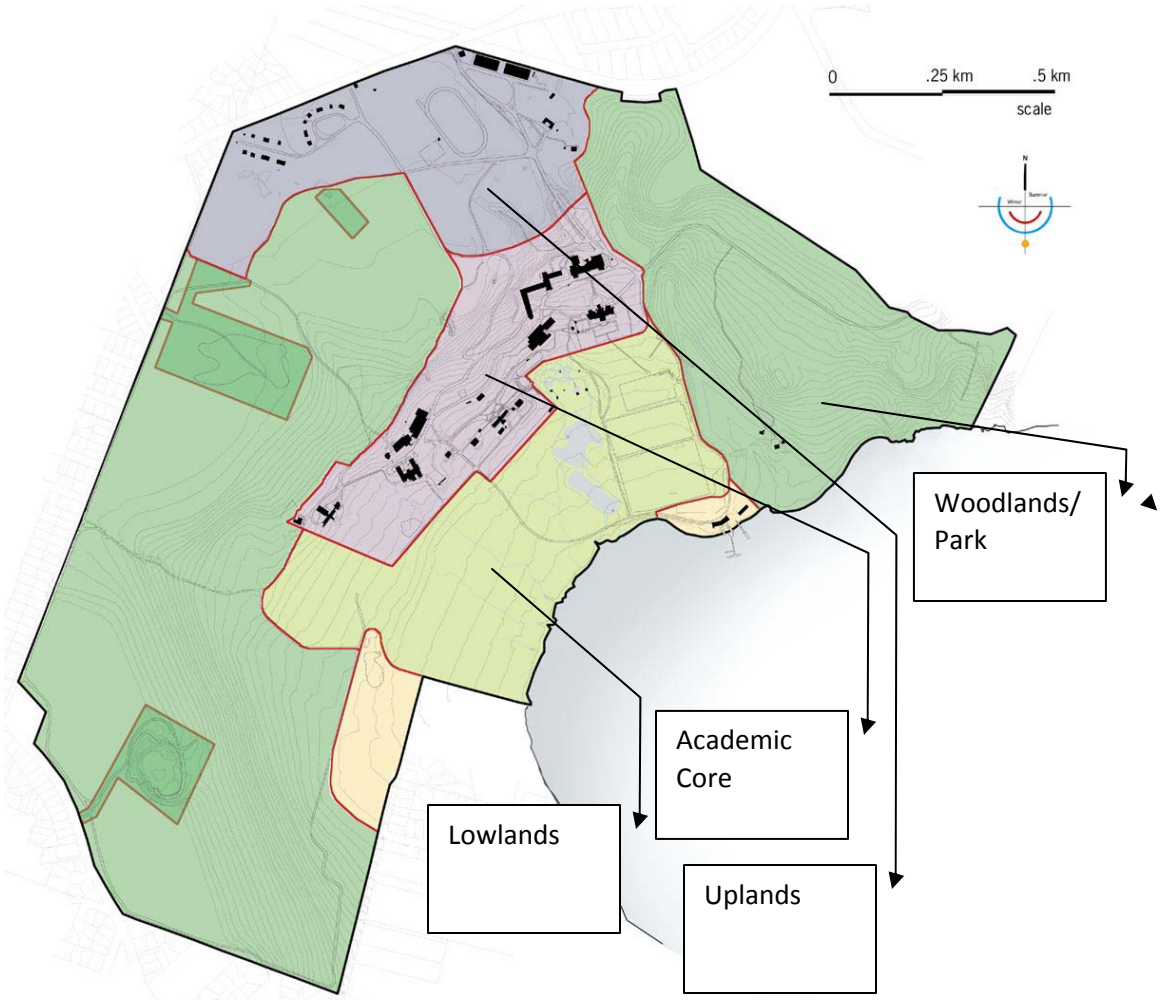
All operations and projects at RRU will adhere to the following principles:

1. Maximize the re-use of existing buildings, sites, and infrastructure.
2. Concentrate construction of new facilities in disturbed areas and on developed sites.
3. Maximize the efficiency of land use through compact and efficient planning, infrastructure, and architectural strategies.
4. Facilitate mixed building use to encourage a pedestrian and interactive campus.
5. Maximize facilities use by sharing between the academic and general communities.
6. Adhere to green building standards in architecture and design, including the incorporation of both passive and active strategies for energy conservation and pollution reduction.
7. Maximize use of local and sustainable resources, methods, and materials in all campus projects and operations.
8. Facilitate alternative transportation strategies and allow only necessary and controlled private vehicle access into the campus
9. Respect the heritage requirements set forth by FHBRO and the CIS.

Development and management strategies will be organized within distinct and symbiotic land-use areas within the campus, as illustrated in Figure 2:

1. The Academic Core – to house the main academic buildings and future growth
2. The Uplands – our closest window to the community, research and education, resource recovery
3. The Lowlands – agriculture, public gardens and tourism.
4. The Woodlands/Park – maintained for preservation, parkland and education and research

FIGURE 2: LAND USE AREAS



ACTION:

Complete an update to the Campus Master Plan for approval by the Board (July, 2009)

INITIATIVE FIVE – UNIVERSITY STEWARDSHIP

Royal Roads University has taken numerous steps towards the path of sustainable campus operations. To date, initiatives include providing numerous recycling and composting collection bins around campus; providing sustainable and environmentally friendly food selections in the on-site café; using an integrated pest management program on campus gardens and lawns and using non potable water for irrigation. These efforts all contribute to a more efficient campus operation.

Waste minimization, such as recycling and composting, reduces impact on the environment and land fill, while using a chemical free cleaning system reduces exposure to chemical cleaners, both of which are excellent examples of reducing environmental impact.

Finally, a large part of university operations involves purchasing. Items such as desks, chairs and numerous computers are purchased based on their energy use rating and the supplier's commitment to the environment. Possibly, of more importance to purchasing, is the proper disposal of items when they are no longer needed.

Buildings

In 2003, the Grant building, one of the major buildings on the Royal Roads property underwent a renovation that was both environmentally and fiscally sustainable. Recently, improvements have been made to the lighting/electrical fixtures in the Grant quarterdeck and the Recreation Center.

Royal Roads University currently uses an average of 0.83 GJ/m^2.yr. This figure is close to the national average for similar buildings. A low of 0.68 GJ/ m^2.yr was achieved in 2004 when the new direct digital controls (DDC) were installed at the Grant, Nixon and Millward buildings. A preliminary energy management study by Cobalt Engineering estimates that the electrical and heating energy load can be reduced by 50% by LED light use, occupancy sensors, more DDCs, increasing building envelope efficiency and high efficiency boilers. The total upgrade cost would be in the order of $3 million.[7]

Dining Services

The Habitat Café, located in the Grant building, offers a variety of meal options. Well aware of global environmental concerns, Habitat Café is currently developing a sustainable purchasing policy and is working to reduce the environmental impact of their operation. Recently the Café underwent certification with the Greentable network and is the only food establishment on Vancouver Island to obtain certification. The Greentable network helps guide food establishments to become more sustainable by encouraging the use of services and products that are beneficial to the local economy, use more eco-friendly processes, incorporates water and energy conservation where applicable and reduces packaging and food waste. To date, Café initiatives have included using compostable wooden cutlery instead of plastic cutlery, composting food waste, undergoing certification for the use of Ocean Wise products, serving only Fair Trade coffee and using compostable "to-go" coffee cups that use a corn based liner as opposed to a petroleum-based liner. Currently 10% of total food expenditures are towards local food, 5% of total food expenditures are spent on food that is both local and certified organic and approximately $25,000 is spent annually on Fair Trade Certified coffee.

Grounds

Although RRU does not currently have an organic campus policy, the majority of gardening is performed as chemically free as possible. RRU's pest management strategy falls under the B.C.

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[7] Iredale, Richard H., Sustainable Mater Plan for the Built Environment, November 2008.

Provincial Government Integrated Pest Management Act and Regulations. This strategy is an ecological approach to pest management and includes using mechanical, physical, biological and cultural methods to reduce or eliminate the use of pesticides.

Garden Plots

The Community Garden contains ten plots occupied by learners, staff, faculty and alumni. An eleventh plot is planted and harvested by the garden community specifically for donation to the local food bank. The flowers, plants, vegetables and herbs are grown using organic methods and an annual seed exchange occurs each spring amongst the gardeners.

Non-Potable Water use for Irrigation

Royal Roads University gets majority of its non-potable water for irrigation from an underground spring and an on-site pump station. The university acquires approximately 30,000 m^3/year of water from this source, which is 90% of the total water used for irrigation.

Recycling and Waste Minimization

Royal Roads University has an extensive recycling and composting program. Recycling bins are available for paper, glass, metal, plastic, and food waste. In 2007, RRU recycled 13,797 kg of material, composted 22,000 kg of material and disposed of 13,499 kg of waste. This represents a 72.6% diversion of materials from the landfill. In order to minimize waste at RRU, education programs include visible signs indicating what can and cannot be placed in the compost or recycle bins and placement of bins in high traffic, conveniently located areas.

Large compost bins to contain kitchen waste and grounds waste are located throughout the University property. A large-scale paper towel composting program is also in place. Paper towel from the bathrooms has been diverted from the landfill through a composting program that diverts 10 tons of paper towels a year from the landfill. Additional waste minimization measures include recycling soft plastics, e-waste and Styrofoam and ensuring they are disposed of in a responsible manner.

Future plans include incorporating education initiatives to inform on-campus learners and those on residencies of the importance of proper use of the recycling bins and composting containers to divert reusable waste from the landfills.

Chemical Free Cleaning

Through the hard work of the Custodial Services team, the implementation of a virtually chemical-free cleaning process has been a success. By using patented micro-fiber cloths and water combined with chemical free products such as floor cleaners, degreasers and general cleaning products, the university is able to remain clean while reducing environmental impact. RRU has conducted a case study on the impact of using the chemical-free cleaning system which it makes freely available to other organizations (RRU, 2005). This has encouraged other institutions to adopt chemical-free cleaning, including the University of Victoria, Camosun College, the Capital Regional District, and the Lodge at Broadmead (RRU, 2005b, p 8).

The smaller campus size allows for the Custodial team to perform trial runs on green cleaning products to ensure they are effective before implementing them across the university.

Hazardous Waste Minimization

Proper handling, disposal and minimization of hazardous wastes are essential to RRU operations. To ensure all employees involved with handling hazardous waste are properly trained and up to date with all practices, the Occupational Health and Safety (OH&S) committee meets every 4 weeks. The annual volume of hazardous waste produced by the university totals 80 liters. A local company specializing in hazardous waste disposal treats the waste off site.

Royal Roads University is able to maintain a low production of hazardous waste as laboratory experiments are specifically designed so that hazardous products will be neutralized before being disposed of. The university holds of 0% down the drain policy and has had faculty members involved with the development of the Capital Regional District Sewage by-laws Best Practices that resulted in changing the best practices protocol. The 2007 wastewater audit performed by the CRD on the University was successfully passed.

Computer Purchasing

Royal Roads University is currently assessing and modifying all computers in order to reduce energy consumption while maintaining high performance. As such, all new desktops will meet the new ENERGY STAR IV standard and to date, three hundred and five ENERGY STAR IV systems have been acquired. There is no specific computer purchasing policy.

Furniture Purchasing

The main furniture supplier for RRU holds LEED certification and is ISO 14001 certified. As much as possible, any furniture that has reached the end of use at Royal Roads is recycled and furniture that is no longer needed is either donated or sold. There is no specific furniture purchasing policy.

Paper Purchasing

Royal Roads University does not have a specific paper purchasing policy, but considerable efforts have been initiated within departments to ensure environmentally preferable materials are purchased. In house printing is done on Forest Stewardship Council certified paper manufactured with wind power, which contains 80% post-consumer recycled content. The printing of Diplomas, degrees and the president's cards are on cotton containing 100% recycled content. The printers in the computer labs and offices contain paper with 30% post-consumer recycled content and are set to print double sided. The departmentally driven initiatives also include ordering from local businesses, and using energy star printers with soy-based toners. There is currently no central mechanism for tracking percentage of expenditures on paper. It should be noted that student consumption of paper associated with student printing has been decreasing, while the consumption of paper associated with staff printing has been increasing as the staff population increases.

While much is being done in the area of purchasing and product stewardship, there is no overall university policy holding it all together,

EMPLOYEE ENGAGEMENT

Sustainability leadership demands the active contribution and enthusiastic participation of Royal Roads employees at all levels. This is being encouraged through two initiatives – one a senior level committee with a mandate to guide strategic direction and operations, and the other, a grassroots employee movement in the early stages of development.

Heritage and Environmental Sustainability Committee

The senior level committee, chaired by the AVP, Sustainability, provides oversight of the governance and guiding principles related to RRU's operation of the Hatley Park campus, while also addressing all the heritage and environmental sustainability concerns. The committee supports the goals and targets set out in the institutional strategic plan, the three-year business plan, and the DND lease requirements.

In particular, the committee – as per its terms of reference – is responsible for the oversight and integration of:

- Setting targets and monitoring progress to those targets
- Stakeholder management as related to all heritage and environmental sustainability issues and practices at the university
- Satisfying all regulatory and legal requirements per their mandate
- Development and implementation of a campus-wide environmental management system (including heritage)
- Attracting funds to the university in support of environmental and heritage stewardship
- Produce an annual "progress to sustainability" report including monitoring and review of the campus master plan

Campus Green

Guided by Royal Roads' commitment to environmental protection and sustainability, a university-wide stewardship program called Campus Green is aimed at minimizing operational impact on the environment through resource conservation and best practices supporting campus sustainability from a grass-roots level.

Campus Green will be composed of an emerging team of employee and student advocates for sustainability. It will act as an umbrella for ideas, research and environmental practices, while organizing green projects in small, self-selected volunteer groups that address manageable projects.

Campus Green plans to lead in the journey to a sustainable campus by:

- Encouraging manageable grass roots green projects that minimize waste streams and conserve natural resources through examination, action and education
- Including anyone who is interested and willing to participate (learners,staff and

community alike),

While:

- Valuing the natural and cultural heritage of the property,
- Contributing to, rather than compromising the sustainability of the campus,
- Complying with all applicable environmental legislation and annually reviewing best practices,
- Being creatively open to new ideas and options,
- Collaborating with the local community where possible to create lasting ties and resource partnerships,
- Sharing and teaching what we've learned,
- Having fun along the way!

Campus Green will focus on two main areas to start:

1. Operational improvements: Some initiatives may be as easy as replacing light bulbs (although most will have already been done), while others may be more challenging such as eliminating imported water onto campus or reducing vehicular traffic on site. Small immediate improvements will go a long way in accomplishing significant and noticeable gains while larger, longer term projects may include many levels of the organization for initiation, planning, approvals and execution and may be relegated beyond the capabilities of *Campus Green*.

2. Annual eco-innovation signature projects: Unique to RRU, authentically local and relevant to our community, environment and eco-systems, these projects will ideally include a partnership with local community groups in addition to including learners, and staff.

Based on the notion that those who have the ideas and the desire to see them come to fruition are best suited to the responsibility of leading that project, CAMPUS GREEN invites contribution from everyone by encouraging participation in this way:

1. Identify a unique sustainability need or issue

2. Bring it to the CAMPUS GREEN open space forum or monthly meetings

3. Invite and involve RRU staff and learners in order to harvest ideas, delineate who will take ownership of the project, who will support. Look to grass-roots solutions, employing a collegial approach through various means of campus engagement.

4. Define and determine parameters, scope, feasibility, supports and desired outcome of specific projects

5. Follow a living systems theory of integration, collaboration, and growth, be resourceful and innovative by approach and application

6. Seek partnerships (both internal and external) where applicable

7. Continue to learn and share what we have learned – communicate progress, improvements, stories, and successes (create and maintain a central repository of CAMPUS GREEN projects past and present online for ongoing reference)

8. Contribute to inform green policies and best practices at RRU while supporting the campus sustainability plan and university goals

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ACTIONS:

Create a Green Purchasing and Product Stewardship Policy for University Wide Implementation (November 2009)

Campus Green Up and Running (March 2009)

EDUCATION AND RESEARCH IN SUSTAINABILITY

LEARNERS, EMPLOYEES, COMMUNITY

Sustainability initiatives focused on RRU's physical campus and business processes are only part of the equation in the university's quest for leadership in environmental stewardship and practice.

Of equal if not greater importance, is the university's learning environment: sharing knowledge and expanding skills through leading-edge environmental programs; creating, exploring and confirming emerging knowledge through innovative applied research; and reaching out to students, employees, partners, advocates, and government leaders through community leadership and participation.

Through knowledge discovery and dissemination – both in word and deed – Royal Roads University honours its founding motto (*Living our Learning*) and the accompanying philosophy of a *living-learning laboratory* dedicated to sustainability.

This section describes our environmental leadership in action and recommends an organizational structure to leverage the university's extensive activities in this area.

ENGAGEMENT, EDUCATION AND RESEARCH

Environmental/sustainability programs have been integral to RRU's founding and growth. From the beginning, the university's inter-disciplinary commitment ensured that curriculum focused on the environment and sustainability would be part of its management, entrepreneurship, leadership, and conflict programs.

Today, this practice continues with sustainability not only incorporated into tourism and communication programs, but a growing realization that the university's unique mandate is presenting a new opportunity in this area. In responding to the education needs of working professionals, RRU can help organizations and government develop the strategies and steps required to address one of the most critical issues of our time.

Currently, the university offers a comprehensive range of environmental degrees, diplomas, and certificates, as well as non-credit courses and workshops.

School of Environment and Sustainability

The School of Environment and Sustainability is dedicated to innovative programs and problem-solving research that focus on economic, ecological and social issues and real world solutions to the challenges of sustainability. Programs include:

- BSc in Environmental Science
- BSc in Environmental Management
- MA in Environment and Management

- MSc in Environment and Management
- MA in Environmental Education and Communication
- Graduate Diploma in Environmental Education and Communication
- Graduate Certificate in Environmental Education and Communication

The School of Environment and Sustainability is part of the Faculty of Social and Applied Sciences, the home of RRU's proposed new Doctorate in Social Sciences. If approved by the Ministry of Advanced Education for launch in 2009, it is expected that doctoral research involving issues of sustainability will comprise a key element attracting students to this new program.

The Faculty of Management

The MBA program is currently in the midst of an overall redesign. The new program will consist of 3-integrated residences plus on-line delivery. Sustainability and Leadership are the major key themes that will run throughout the program.

The Faculty of Tourism and Hotel Management

The new Faculty of Tourism and Hotel Management has fully embraced the concept of sustainability and offers a Graduate Certificate in Sustainable Tourism Management which is also a part of the Master of Arts in Tourism Management.

Canadian Centre for Environmental Education

The Canadian Centre for Environmental Education (CCEE) is a partnership between Royal Roads University and ECO Canada (Environmental Careers Organization – one of the 30 sector councils supported by the federal government). The centre, created in 2006, is designed to meet the training and education needs of the expanding labour market in the environmental sector.

Continuing Studies

Continuing Studies at Royal Roads University offers more than 250 courses and workshops, including those focused on "green learning." These learning experiences encompass discussions, forums, festivals, courses and events focused on eco-adventure, environmental literacy, global issues, horticulture, and nature.

Research Initiatives and Partnerships

One of two research themes at Royal Roads University involves sustainable societies and communities. Currently, this applied research includes, but is not limited to four areas:

1. ***Governance***

Economic, social, health, environmental and organizational issues are central to the development of sustainable communities, and affect a wide variety of stakeholders. Governance determines how communities will accommodate rapidly changing circumstances and diminishing resources

2. Environmental Solutions

The application of environmental sciences to identify, characterize, and address community-related problems offer a specialty niche for RRU

3. Community Learning and Development

Communities tend to be isolated from mainstream technology and management system development, and often have limited resources available to them to deal with issues that are complex and controversial. As a leader in distributed learning, RRU is well positioned to lead research in sustainability literacy at the community level. For example, RRU could develop a website which would allow the community to see the environmental benefits of the Waste and Energy Recovery Centre. The website could report real-time flows of materials, water, energy, and a greenhouse gases through the Centre, and also report on the cumulative benefits of the Centre in terms of reductions in environmental impacts. The website could also include diagrams showing how the equipment in the Centre works, and the story of how it came about.

4. Culture and Conflict

The theme recognizes the growing importance of cultural analysis prior to intervention in ethno-political and other identity-based conflicts.

In addition, Royal Roads University holds the Canada Research Chair in Sustainable Community Development (Ann Dale) supporting sustainable infrastructure and leadership in communities across Canada and is home to the Centre for Non-Timber Resources.

Bateman Centre for Art and Environmental Education

As described in chapter two, the Bateman Centre for Art and Environment Education – made possible through a generous gift of international artist Robert Bateman – has acted as a catalyst in the university's thinking about sustainable leadership.

This not only relates to the *built environment* on campus – and the implications of a "living building" – but the nature of educational programming, tourism, and community outreach that will result from having the centre located on the RRU campus.

The Bateman Centre at Royal Roads University is imagined as a visionary learning centre that will celebrate art, education, and the natural world. Meant to engage creativity, innovation, and new partnerships in support of a sustainable future, the centre will build on RRU's four founding pillars and be a place where people can explore new ideas, extend knowledge, and take action on the challenges of a sustainable future.

ACTION:

All new learners get orientation to RRU Sustainability Initiatives (September 2009)

VPA to examine sustainability in the curriculum as part of on-going Academic Planning (December 2008 - June 2009)

Effectively engage students to support our sustainability initiatives (e.g., BSc projects, Masters research projects, MBA Consulting Projects) (On-going_

All employees have a sustainability objective in their work plans(November 2010)

COMMUNITY OUTREACH

Recognizing that community environmental advocates are important stakeholders it is understood that they are not an homogeneous group. It is difficult to generalize the current relationship that the University has with them as stakeholders and the relationship is piecemeal, fractured and ad hoc.

Our desired relationship is that Royal Roads is seen as a leader in environmental/sustainability education, stewardship and innovation. Our work with environmental advocates is collaborative, respectful and trusting, and rooted in reciprocal sharing, learning and dialogue. We understand each other's objectives, are able to balance competing interests, and garner positive participation in campus development plans.

To address the gap between the University's current and desired relationship with environmental advocates, efforts will be made to:

- Pursue opportunities within teaching, learning and research to work with environmental advocates,
- Gather information on the stakeholder, their individual relationships and the key players (both internal and external),
- Frame the stakeholder's interests in the context of RRU's objectives,
- Undertake purposeful formal and informal consultation and engagement (both internal and external), and
- Communicate and collaborate on specific initiatives with equitable solutions, within the capacity and capabilities of RRU.
- Cooperate with and support the City of Colwood concerning its plans to create a sustainable community.

Which will be designed to achieve the following objectives:

- The Bateman Centre and new academic building are built with public input and support.
- We have access to funding and expertise on achieving RRU's sustainability goals.
- The $30 million fundraising campaigns for the Bateman Centre and sustainability projects are successful.
- The public and learners view RRU as a leader, inspirer and enabler of sustainability.
- Staff, faculty and learners engage in sustainability research, teaching and projects.
- Continuing to convene researchers, practitioners and community leaders in dialogue.
- RRU is a convener of environmental groups, while maintaining a neutral role.
- RRU is actively engaged with local environmental groups.

ACTION:

Assemble a database of environmental and sustainability organizations, influencers, goal alignment, relationship, RRU people involved, etc., (February 2009)

Consult with environment and sustainability groups on their interests and intentions (on-going)

Develop consultation and communication strategies for specific initiatives (campus development, Bateman Centre, sustainability plan) (December 2008)

Establish baseline data for evaluating results through methods such as focus groups, on-line surveys and/or one-on-one interviews (March 2009)

Create a sub-committee of the Heritage and Environmental Stewardship Committee for managing and maintaining this relationship (January 2009)

Define best practices for organizational sustainability initiatives and publicly promote them (on-going)

ORGANIZATION AND GOVERNANCE

There are a number of elements which are driving the need for greater organizational structure, alignment, and governance as related to sustainability. These include:

- the myriad scope of activities occurring in disparate units of the university;
- the increased number of faculty participating in applied research related to sustainability;
- the intent to further integrate sustainability into curriculum as per the academic strategic plan;
- the need to provide working professionals with the leading knowledge and skills to address sustainability within their organizations;
- a desire on the part of university employees to see RRU assume leadership in this area
- the far-ranging implications of creating a Sustainable Master Plan for a campus located on a National Historic Site;
- the relevance and momentum of sustainability as linked to the $100 million capital campaign underway by the RRU Foundation;
- the impact of the decision to construct and operate the Robert Bateman Centre for Art and Environmental Education and the inherent opportunity and challenges this presents;
- the ambitious goals of the B.C. Government and expectations for public universities to contribute to the province's climate change agenda, and
- the initiative to build a Waste and Energy Recovery Centre.

Currently, there is no centralized structure beyond the office of the AVP, Sustainability for leadership and oversight of the university's sustainability plan.

While the office should act – among other things – as a clearing house for information and central hub for integration and alignment of RRU's sustainability strategy, this exceeds the capacity of the AVP who is also responsible for international academic operations, executive and professional development programming, and the university's information technology units, including the RRU Library.

As such, this sustainability plan recommends the creation of a small office to promote sustainability across campus. In the beginning it is recommended that the office concentrate on environmental issues rather than the broader set of sustainability imperatives. The function of the office is to:

- monitor progress to targets;
- advise on regulatory and legal issues;
- implement and Manage an EMS;
- communicate, educate and market sustainability;
- produce an Annual Sustainability Report;
- support the Heritage and Environmental Stewardship Committee;
- develop and Implement Staff and Learner Orientation;
- coordinate and grow the Sustainability Action Fund for the Environment (SAFE);

- support Green Teams;
- report to the Board on relevant Key Performance Indicators, and
- measure the University's greenhouse gas emissions on an on-going basis.

This function could be carried out by 1 FTE attached to the Office of AVP and CIO.

ACTION: Create the Office of Sustainability (April 2009)

CONCLUSION

This strategy represents a bold step for Royal Roads University. The Capital projects outlined in this strategy could run in excess of $70 million and as such represent risk that cannot be understated. The remaining initiatives concentrate on utilizing and inspiring our faculty, staff and our local community to get engaged with the University to make this a campus we can be doubly proud of.

Through this plan we can jointly create a campus that:

- Promotes education and research on sustainability by building learner, faculty and community engagement.
- Create a place to study, work and live that is unrivalled in the world.
- Create a climate neutral, grid positive campus.

SUMMARY OF ACTIONS

Greenhouse Gas Management

Special Meeting of the Heritage and Environmental Stewardship Committee to Discuss Climate Change Strategy (January 2009)

Continue to complete a yearly comprehensive inventory of all GHG emissions on campus. (Yearly by September)

Set targets, and develop an institutional climate action plan. (October, 2009)

Immediately, implement selected tangible actions to reduce GHG emissions.
(in progress)

Going Grid Positive

Complete the RFEOI process in progress and work to develop a detailed business plan (October 2008) for the small scale wood waste co-gen facility (Component 1 of the Waste and Energy Recovery Centre).

Investigate more thoroughly the feasibility of anaerobic digestion and waste water treatment as energy producers(Components 2 and 3 of the Waste and Energy Recovery Centre). (October 2009)

Campus Transportation

Decision	Priority	Time
Establish a realistic travel modal split benchmark	LOW	December 2009
Re-route traffic circulation and re-name select roads	MED	July 2009
Parking lot consolidation	MED	November 2009
Campus planning	HIGH	January 2009
Shuttle service	LOW	As required
Parking management	MED	July 2010
Implement new parking fee structure	HIGH	September 2009
Garden attraction area	MED	July 2010
Transportation demand management measures	LOW	December 2009

Building and Heritage Conservation

Complete an update to the Campus Master Plan for approval by the Board (July, 2009)

University Stewardship

Create a Green Purchasing and Product Stewardship Policy for University Wide Implementation (November 2009)

Campus Green Up and Running (March 2009)

Engagement, Education and Research

All new learners get orientation to RRU Sustainability Initiatives (September 2009)

VPA to examine sustainability in the curriculum as part of on-going Academic Planning (December 2009)

Effectively engage students to support our sustainability initiatives (e.g., BSc projects, Masters research projects, MBA Consulting Projects) (On-going_

All employees have a sustainability objective in their work plans(November 2010)

Outreach

Assemble a database of environmental organizations, influencers, goal alignment, relationship, RRU people involved, etc., (February 2009)

Consult with environmental groups on their interests and intentions (on-going)

Develop consultation and communication strategies for specific initiatives (campus development, Bateman Centre, sustainability plan) (December 2008)

Establish baseline data for evaluating results through methods such as focus groups, on-line surveys and/or one-on-one interviews (March 2009)

Create a sub-committee of the Heritage and Environmental Stewardship Committee for managing and maintaining this relationship (January 2009)

Define best practices for organizational sustainability initiatives and publicly promote them (on-going)

Organization and Governance

Create the Office of Sustainability (April 2009)