

SUSTAINABILITY AUDIT FOR BISHOP'S UNIVERSITY CAMPUS: 2011

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EXECUTIVE SUMMARY

Bishop's University campus sustainability audit is undertaken every three years in order to assess Bishop's current sustainability and the steps that can be taken to improve it. The audit is based on the Campus Sustainability Assessment Framework (CSAF) core as well as the CREPUQ. The CSAF core is defined by the Sierra Youth Coalition and it is comprised of ten orientations which are divided into more specific indicators. The results of analysing Bishop's in regards to the CSAF and CREPUQ indicators are presented herein. This cohesive document will provide the campus community with access to information relevant to Bishop's situation. It will allow the Bishop's community to view its current sustainability, its progress over the last three years, and ways in which it can improve itself in years to come.

This audit has also functioned as a pilot study for integrating the sustainable audits into class curriculums. Four classes were chosen to participate in this pilot: Intro to environmental studies (ESG 100), Human Impact (ESG 224), Introduction to Geographic Information Systems (ESG 262) and Quantitative methods (ESG 261). *See Appendix C: Course Integration for specific details on the integration.*

The first component of the document will present the indicator, its purpose, and a summary of Bishop's situation in regards to it. Following the style of the 2008 sustainability audit, undertaken by Daphne Fisher, recommendations for improving the indicators results in years to come has been included as well. This has been done to provide "a more comprehensive reference for future implementations and targets" as stated in Mrs. Fishers 2008 audit.

A comparison between indicators in the previous audit, 2008, and the current audit will be included. The indicators which are present in both the CSAF indicators and the CREPUQ (which was the only framework used in the 2008 audit) will be identifiable by their **blue** colouration. Indicators of **purple** colouration are found only in the CSAF core and are not present in the 2008 audit. Indicators that are only found in the CREPUQ, and have been assessed in both the current and most recent audit, will be in a separate section titled CREPUQ Indicators, and will be identifiable by their **green** colour.

At the end of the document multiple appendices have been included. These contain calculations and other important information used or consulted during this audit and will assure the transparency of all information in the audit. *Appendix A* contains the calculations used to analyse the indicators so that future audits may duplicate the methods and procedures to ensure consistency in future Bishop's audits.

While every effort has been made to ensure accuracy, all numbers are approximate and based on the best available data. This audit was undertaken in 2011, however, many indicators require a full year's worth of information and as such data was obtained based on the 2010 fiscal year (July 1st 2009 to June 30th 2010) unless otherwise indicated.

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TERMINOLOGY

Throughout this paper certain abbreviations have been used that are not part of common vocabulary and as such will be explained.

<i>Abbr.</i>	<i>Word or Phrase</i>	<i>Definition</i>
CCM or MCU	Campus Community Member or Membres de la communauté universitaire	Any individual who is a full time student or employee of Bishop's University campus.
FTE	Full Time Equivalent	Any student is considered FTE if they are pursuing a minimum of 12 credits. Any employee is if they are employed as a full time employee by the university.
CSAF	Campus Sustainability Assessment Framework	A framework upon which campus audits may be based. The CSAF is based on a thesis by Lindsay Cole. A selection of essential indicators has been made to produce the core CSAF which has been used for this audit.
EEETP	Effectif Etudiant des Universités Québécoises en équivalence au temps plein.	The total number of full time students attending Bishop's University.

SUMMARY & RECOMMENDATIONS BY INDICATOR

This section is broken into the ten orientations found in the CSAF core, with associated indicators listed under each orientation. The indicators are defined, their purpose explained, their results summarized and recommendations for their improvement are included.

Orientation 1: Health & Wellness

HW-1: Recreational Space

CSAF Definition	Total square meters dedicated to recreation uses (both in- and outdoor to be included) divided by total campus square meters; multiply by 100
Purpose of Indicator	To assess the amount of on-campus space allocated to physical activity, both indoors and outdoors, which encourages campus community members to maintain & improve their physical health.
Bishops Situation	A: % interior recreational space on campus: 0.83 % i. % interior space on campus used for recreation: 19.5% B: % exterior recreational space on campus: 17.33% C: % total recreational space on campus: 18.16%
Comparison	In the 2008 audit the percentage of interior space reserved for recreational use is 19.46% which has remained consistent over the previous three years. Meanwhile the percentage of exterior recreational space appears to have increased from 15.9% to 17.33%. Consultation with campus community members has confirmed that the campus has not converted any land into recreational space in the last 3 years. The total area of recreational space considered for this audit was 334 636 m ² , while in 2008 it was considered to be 197 974 m ² . It should also be noted that the campus area used in the 2008 audit only considered the immediate BU campus (lots 2446789 and 2447357) and the golf course, while the current audit has considered all land owned by the university as part of the campus area. Finally, it should be noted that the Coulter football field has been outfitted with a synthetic turf in these years, but its area has not changed significantly.
Recommendations	A: The interior recreational space on campus includes the John H. Price Sports Complex and the W.B Scott arena. Both spaces are in considerate need of updating, specifically the upstairs weight and fitness rooms in the Price Sports Complex. Luckily, the university will be renovating the existing facilities as well as constructing a new double gym and arena. During the summer of 2011 new sporting equipment, including spinning bikes and elliptical machines have been temporarily installed in an existing room at the Price Complex. This equipment will be transferred into its permanent room once

renovations are completed.

Access to these facilities is included in student fees, and Bishop's employees receive a 30% reduction in membership fees. Consultation with the director of athletics has revealed that an increase in this employee rebate would seriously jeopardize the operating budget of the sports center. No recommendations currently exist for the interior recreational space on campus.

B: The exterior recreational space includes all practise and sports fields, the golf course, the football stadium, the outdoor pool, the tennis court as well as optimist park. The area of these spaces was estimated using a 2007 orthophoto of Bishops campus with a 1:25 000 ratio. A more recent and detailed orthophoto should be used in future audits to increase the accuracy of this indicator. The majority of these areas are in good condition; however the Champlain practise field and the soccer field located beside the W.B. Scott Arena are subject to annual flooding. This issue is currently being mended for the soccer field whose drainage is being improved during the installation of 60 geothermal wells for the energy efficiency project. No recommendations exist for the Champlain soccer field as it is not under Bishop's care.

C: The total recreational space on-campus is quite sizable and provides a vast opportunity for campus community members to maintain and improve their overall fitness. The percentages are even more sizable when you consider that the campus size includes forests and agricultural land. With the new sports facilities and recreational areas soon to be renovated and constructed, the campus will have more extensive and attractive recreational space for the campus community to be physically active. It is recommended that the university continue to encourage the use of these areas, and available equipment, for physical activities such as squash, tennis, geocaching, snowshoeing, hiking, etc...

HW-3: Diet Types

CSAF Definition

Total annual number of meal servings (i.e. breakfast, lunch and/or dinner) provided by all food service outlets on-campus that have all listed diet types provided for in the serving, divided by total number of meal servings provided by all food services each year; multiply by 100. Different diet types include: regular, vegan, vegetarian (lacto ovo),

	kosher, Hindu, Muslim, diabetic, gluten free, and low calorie, cholesterol and salt.
Purpose of Indicator	To assess the availability of meals to individuals with various dietary restrictions in order to ensure adequate nutritional service to all students.
Bishops Situation	% of meals suitable to students with various dietary-restrictions: 80.5%
Comparison	The 2008 audit had no information for this indicator due to the buffet style lunches served at Dewhurst. However, these buffets are considered as one meal option for the current audit and have been checked by Sodexo, the campus food provider, to assure they fit the above criteria.
Recommendations	A value of 80.5% is quite impressive and may actually be over simplifying the food options at Bishop's. Every meal offered at campus food outlets contain all the above mentioned diet types, except the Tim Horton's options. As a franchise, Tim Horton's menu is fixed, but as other meal options are available at other food outlets this should not be of greatest concern. It is recommended that Sodexo continue to offer meals for diverse diet types at the food outlets they have full control over.

HW-5: Organic, Non-GMO, Fair Trade Food

CSAF Definition	Total annual dollar value of certified organic, and/or non-genetically modified, and/or fairly traded food products, divided by the total annual food budget; multiply by 100. Note: if a food meets two or more of the categories, it should only be counted once.
Purpose of Indicator	To assess Bishops dedication to providing its students with environmentally and socially responsible foods.
Bishops Situation	% of Bishops food budget spent on certified organic, and/or non-genetically modified, and/or fairly traded food products: 0.87%
Recommendations	This value is very low and every effort should be taken to increase it. According to Sodexo, very little other than their coffee is organic, non-GMO and/or fair trade. This is due to the lax regulations concerning branding items under these titles as well as to their price. The current food budget is unable to support purchasing these types of products. It is recommended that the university undertake a survey with food service clients to determine the demand for organic, fair-trade and non-GMO food versus the willingness to pay extra for such foods. The results of such a survey should then be consulted when determining the annual food budget and purchasing guidelines in following years.

HW-9: Physical Health Care Practitioners

CSAF Definition	Total number of certified FTE physical health care professionals on-campus in assessment year (doctors, nurses, naturopaths, physiotherapists, etc.) divided by the total number of CCM's.
Purpose of Indicator	To determine the number of certified physical health care professionals available to Bishops community members in order to assess, maintain or improve their physical health.
Bishops Situation	Information for this indicator is based on the winter 2011 semester. % of certified FTE physical health care professionals on-campus per CCM: 0.081%
Recommendations	Only two nurses are currently employed by Bishop's University. However, a doctor and 4 physiotherapists are located on campus but are employed by independent agencies. The services offered by these physical health care professionals are available to all Bishop's students even if they are not Bishop's employees. It is recommended that the university maintain the current level of service.

HW-12: Mental Health Care Practitioners

CSAF Definition	Total number of certified FTE mental health care professionals on-campus in assessment year (psychiatrists, psychologists, counsellors, etc.) divided by the total number of CCM's.
Purpose of Indicator	To determine the number of certified mental health care professionals available to Bishops community members in order to assess, maintain or improve their mental health.
Bishops Situation	Information for this indicator is based on the winter 2011 semester. % of certified FTE mental health care professionals on-campus per CCM: 0.081%
Recommendations	<p>The university only has two certified psychiatrists, but it also has 2 nurses and a doctor capable of performing psychological evaluations. A career and employment officer and a student with disabilities coordinator are also Bishop's employees who can help with mental health care issues.</p> <p>An initiative that was started in January 2011 has reserved six half hour sessions a week for severe and urgent cases that students may have. This initiative has been a great success and will be continued in the following academic year. The dean of student affairs, Jackie Bailey, has confirmed that she has heard no complaints from students. Therefore, it is recommended that the university maintain the current percentage of certified mental health care professionals.</p>

HW-17: Accessible Green Spaces

CSAF Definition	Total hectares of green spaces accessible to CCM's within 1 kilometer of campus (both on- and off-campus) in assessment year divided by the total number of CCM's; multiply by 1000.
Purpose of Indicator	To determine the amount of green space accessible to campus community members on and off campus so that they may maintain or enhance their fitness level.
Bishops Situation	% of hectares of green space within 1 km of campus per CCM: 7.79 %
Comparison	In the 2008 audit Daphne did not have the data for this specific indicator, further details are available in this document under ' <i>CREPUQ indicator A.2: Accessibility to Green Space</i> '.
Recommendations	With each CCM having access to 7.79% of a green space hectare, and the campus being located in a rural setting, the campus community members have quite a bit of green space to utilise. Accessibility to these areas will be enhanced with the construction of the 410, as a path will be created to the Mitchel farm region, located at the back of the campus limits. Uses of these areas are supported through the geocaching, hiking and other activities supported by the environmental studies department and the environmental club. It is recommended that these activities are maintained and/or improved to ensure the continued use of these green spaces by CCMs.

Orientation 2: Community

C-1: Volunteerism

CSAF Definition	Total annual number of CCMs who volunteer at least 2 hours per week divided by the total number of CCMs, and multiplied by 100. Volunteering can be with one, or several different groups working on any issue but must be based on-campus. Organizations actively working against the concepts of sustainability (i.e. racial discrimination, waste of resources, etc.) shall not be included, and double counting of people should be avoided.
Purpose of Indicator	To assess the quantity of volunteerism undertaken by Bishops University campus community members. Therefore, the dedication of campus members to maintaining and improving the sustainability of Bishops through involvement in various campus organizations.
Bishops Situation	This information is based on a survey sent to all Bishop's CCMs in the Winter of 2011 (see <i>Appendix E: Sustainable Audit Survey</i>). % of Campus community members who volunteer 2 hour per week: 20.1%
Recommendations	According to a survey sent to all CCM's, approximately one fifth of campus community members volunteer a minimum of 2 hours per week on campus. However, this survey only encompassed 313 of all the 2458 CCM's and is not representative. Volunteerism on campus could be increased by increasing awareness of opportunities. Few groups advertise the volunteering opportunities open to Bishop's student. This past year a new section on the Bishop's career and employment center website has been created that lists volunteer opportunities available both on and off campus in the Lennoxville area. The Leadership, extracurricular and activities program (LEAP) is also a new initiative. Introduced in 2007, this program allows students to receive recognition for their involvement on campus and to obtain a certificate verifying this involvement upon graduation. Greater awareness of this website and program would help increase the community's knowledge on the subject and hopefully their involvement in campus volunteering. Awareness options include advertising these services and programs in the Daily Dish, at information kiosks as well as during orientation week.

C-6: Voter turnout

CSAF Definition	Number of student voters in most recent student election (of any type), divided by total number of eligible voters; multiply by 100. If more
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	than one election was held in the previous year, average the voter turnout results.
Purpose of Indicator	To determine the percentage of Bishops students who vote in student elections and thus take an interest in their campuses student politics.
Bishops Situation	Average % voter turnout for 2010 calendar year: 32.5%
Recommendations	A voter turnout of 20% is needed for elections at Bishop's University to be considered successful and as such the current average voter turnout is well above the required. However, a 100% turnout is always the aim. To increase the percentage of student voters it is recommended that an awareness campaign should be launched which explains the role of student politics in the campuses functioning. This campaign should be extended indefinitely with information being provided to incoming students about the role and responsibilities of all student positions. With increased understanding of what is being and could be done by the student council, more individuals may be compelled to vote and run for election. It is recommended that frosh week and the associated activities should be capitalized upon to spread this information.

C-7/8: Employees with Disabilities

Definition	Summarization & modification of CSAF indicators C-7 and C-8. Percent of FTE employees (staff & faculty) with physical and/or mental disabilities. Subtract the national population average of people of working age with disabilities from the percent.
Purpose of Indicator	To assess the ethical responsibility of Bishops University in terms of employing physically and/or mentally disabled individuals.
Bishops Situation	Insufficient Data.
Recommendations	An attempt to gain the information for this indicator was made in winter 2011 when a survey was sent to all CCM's. A total of 313 individuals replied and with such a small number of respondents this information is not representative and will not be used for this indicator. The Human Resource Officer on campus has stated that an evaluation of employment equity is to be undergone by January 2012 and it is recommended it be updated regularly so as to provide future audits with a comprehensive and reliable source of the information. Concerning equitable employment, job opportunities are published on the university website as well as in local newspapers. In line with the Employment Program under «L'accès à l'égalité en emploi sous la Commission des droits de la personne et des droits de la jeunesse », joined in January 2009, job postings are prepared in a neutral language.

It is also mentioned that the university has an Equal Access Policy in place and all individuals are encouraged to apply. Information gathered during interviews is examined to ensure that it respects Article 18.1 of the Human Rights Act. New employees are informed of Bishop’s commitment to equality in the workforce and are required to complete a questionnaire identifying if they belong to certain targeted groups. A Harassment Policy is currently being drafted by the VP & Secretary General of the University. All employees will be informed upon its completion. The Human Resource Officer also hopes to diversify recruitment methods in the near future to reach targeted groups.

C-9: Students with Disabilities

CSAF Definition	Modification of CSAF indicator C-9. Percent of FTE students with physical and/or mental disabilities from each department on campus. Subtract the national population average of people of working age with disabilities from the percent.
Purpose of Indicator	To assess the ethical responsibility of Bishops University in terms of recruiting physically and/or mentally disabled students.
Bishops Situation	The information used for this indicator is from the winter 2011 semester. A: % of FTE students with physical and/or mental disabilities in Arts & Science above the national average: -3.3% B: % of FTE students with physical and/or mental disabilities in Business above the national average: -5.1% C: % of FTE students with physical and/or mental disabilities in Education above the national average: -4.5% D: Total % of FTE students with physical and/or mental disabilities above the national average: -3.5%
Recommendations	The percentage of students with physical and/or mental disabilities at Bishop’s university is slightly below the national average and should be enhanced. No current recruitment strategies are specifically aimed at these students; however, the services available to students with special needs are clearly explained. The Buildings and Grounds department works closely with Laura Valsan, the coordinator for students with disabilities, to ensure that student needs are met and that renovations are prioritized based on these needs. While not enough residences are currently adapted for the needs of the physically disabled, a 250 000\$ subsidy from the government has been obtained to adapt bathrooms in residences for handicapped individuals. It is recommended that Bishop’s continue to improve facilities and

	residences based on the needs and concerns of disabled students. While these structural improvements are underway enhanced recruitment strategies for mentally and/or physically disabled individuals should be investigated.
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C-10/11: Employees of Ethnic Minorities

CSAF Definition	Summarization and modification of CSAF indicators C-10 and C-11. Percent of FTE employees (staff & faculty) that self-identify as a member of an ethnic minority.
Purpose of Indicator	To assess the ethical responsibility of Bishops University in terms of hiring individuals who self-identify as members of ethnic minority.
Bishops Situation	Insufficient Data
Recommendations	Please see indicator <i>C-7/8: Employees with Disabilities</i> for further information on the inability to assess this indicator and on Bishop's employment equity policies. The same recommendations apply to this indicator.

C-12: Students of Ethnic Minorities

CSAF Definition	Modification of CSAF indicator C-12. Percent of FTE students that self-identify as a member of an ethnic minority from each department on campus.
Purpose of indicator	To assess the ethical responsibility of Bishops University in terms of recruiting students who self-identify as members of an ethnic minority.
Bishops Situation	Insufficient Data.
Recommendations	Please see indicator <i>C-7/8: Employees with Disabilities</i> for further information on the inability to assess this indicator and on Bishop's employment equity policies. In terms of recruiting students of ethnic minorities, work has been done with the Service d'aide aux Neo-Canadiens here in Sherbrooke for recruiting such individuals. Immigrants are regularly sent to the Bishop's recruitment office for campus tours and assistance with applying for admission. It is recommended that further agreements with such organisations should be made and maintained.

C-13/14: Employee Gender

CSAF Definition	Summarization and modification of CSAF indicators C-13 and C-14. Percent of FTE employees (staff, administration and faculty) that are female.
Purpose of indicator	To assess the ethical responsibility of Bishops University in terms of hiring employees of both sex equitably.

Bishops Situation	% of Bishop's employees that are female: 46.5 %
Recommendations	The percent of female employees is very near to half and represents the equality Bishop's demonstrates in terms of gender. Please see indicator <i>C-7/8: Employees with Disabilities</i> for further information on Bishop's employment equity policies. It is recommended that the university continues to hire an equal percentage of male and female employees.

C-15: Student Gender

CSAF Definition	Modification of CSAF Indicator C-15. Percent of FTE female students in each department on campus.
Purpose of Indicator	To assess the ethical responsibility of Bishops University in terms of recruiting students of both sexes equitably.
Bishops Situation	The information used for this indicator is from the winter 2011 semester. A: % of FTE students that are women in Arts & Science: 58.0% B: % of FTE students that are women in Business: 40.1% C: % of FTE that are women in education: 81.4% D: Total % of FTE students that are women: 57.8%
Recommendations	The university has a strong population of female students, greater than 50%. Therefore recruitment strategies aimed at males should be focused upon. Recommendations include promoting the physical activities and sports open to students at Bishop's, as males tend to be attracted to universities offering these activities.

C-16/17: Equity of Indigenous People: Employees

CSAF Definition	Summarization and modification of CSAF Indicators C-16 and C-17. Percent of employees that self-identify as Indigenous Peoples
Purpose of Indicator	To assess the ethical responsibility of Bishops University in terms of hiring individuals who self-identify as Indigenous Peoples.
Bishops Situation	Insufficient Data
Recommendations	Please see indicator <i>C-7/8: Employees with Disabilities</i> for further information on the inability to assess this indicator and on Bishop's employment equity policies. The same recommendations apply to this indicator.

C-18: Equity of Indigenous Peoples: Students

CSAF Definition	Modification of CSAF Indicator C-18. Percent of students that self-identify as Indigenous Peoples from each department on campus.
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Purpose of Indicator	To assess the ethical responsibility of Bishops University in terms of recruiting students to each department who self-identify as Indigenous peoples.
Bishops Situation	Insufficient Data
Recommendations	Please see indicator <i>C-7/8: Employees with Disabilities</i> for further information on the inability to assess this indicator and on Bishop's employment equity policies. As of yet no bilateral agreements, special rates and/or adapted admission criteria have been formed concerning indigenous students. Therefore it is recommended that this should be modified so as to enhance the percentage of indigenous peoples attending the university.

C-25: Affordability of Public Transport

CSAF Definition	Total annual cost of providing all CCM's with public transit passes for their time on campus, subtract total amount of money spent by university and student administrations on public transit subsidies each year. Divide this difference by the total annual cost of providing all CCM's with public transit passes; multiply by 100
Purpose of Indicator	To determine the financial cost of providing students with public transport passes thereby reducing the use of individual automobiles for transportation.
Bishops Situation	% increase in annual transport budget for providing all campus community members with public transport passes: 100 %
Recommendations	With no money currently spent on public transport subsidies it is quite expensive to provide all CCM's with public transit passes. It may also prove ineffective with many CCM's living outside of areas serviced by the Société de transport de Sherbrooke. The cost of on-campus parking passes is 110\$ per student and 140\$ per employee, therefore individuals are dissuaded from driving to campus. It is also difficult to rely on the Société de transport de Sherbrooke for public transport as it has an infrequent schedule that does not appeal to many users. With buses leaving irregularly, students and staff do not have much flexibility and would arrive early or late to classes and work. An agreement with the Société de Transport Sherbrooke should be explored as previously attempted by former SRC president Mark Lawson. This agreement could look into the possibility of allowing Bishop's students access to two bus routes; one route that would go to Sherbrooke University and another that will go to downtown Sherbrooke. The possibility of this agreement should be investigated as soon as possible.

Orientation 3: Knowledge

K-1: New faculty Orientation

CSAF Definition	Total annual number of new FTE faculty receiving at least 1 hour of in-person orientation to campus and local community environment/social issues divided by the total number of new FTE faculty members arriving on-campus in that year, multiply by 100
Purpose of Indicator	To assess Bishops commitment to providing faculty with exposure to sustainable issues and initiatives on campus and in the community.
Bishops Situation	% of new faculty receiving at least 1 hour of sustainable orientation: 0.0%
Recommendations	A value of 0.0% is unacceptable for this indicator and measures for improvement must be taken immediately. All new faculty members receive an informal orientation to their department and associated tasks. It is recommended that this orientation incorporate environment and social issues affecting the local community. This will allow faculty to be more aware of campus initiatives and to integrate this new knowledge into course curriculum.

K-4: Faculty Sustainability Training

CSAF Definition	Total annual number of training hours t dedicated to sustainability topics (including on- and off-campus workshops, seminars, conferences, etc.) for faculty members divided by the total number of FTE faculty
Purpose of Indicator	To assess Bishops commitment to providing faculty with training hours devoted to sustainable issues and initiatives on campus and in the community.
Bishops Situation	# of training hours devoted to sustainable issues per employee: 0.0%
Comparison	In the 2008 audit the data for this indicator was not available, however, it was mentioned that faculty did not get any sustainable training. One of the recommendations was to have a library section or showcase dedicated to sustainability. This has not yet been done and it is recommended that rather than having a physical showcase a webpage should be created allowing easier and more widespread access to the information.
Recommendations	The participation of faculty from all divisions in on- and off-campus workshops, seminars, conferences and other events related to sustainability is highly recommended. Creation of a small one or two hour seminar with peers, or any other available resources, would allow faculty to learn of sustainable issues affecting BU and of initiatives being undertaken at Bishops to improve its sustainability.

	It should be noted that Bishop’s faculty are taking their own initiative as can be seen in the formation of the MUSLE cluster, or multi-scale climate and environmental change cluster. Created in the fall of 2009, this cluster focuses on research concerning environmental and climate change. Workshops and seminars concerning this research have occurred but have become less frequent due to a lack of attendees. A website was also designed but never posted to the University website. It is recommended that this website is posted and that its existence is promoted to all CCMs.
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K-11: Sustainability Research Expenditures

CSAF Definition	Total annual research dollars spent on sustainability-focused projects divided by the total annual research dollars, multiply by 100.
Purpose of Indicator	To assess the commitment of Bishops to sustainability related research.
Bishops Situation	This indicator was assessed using information from the 2009 fiscal year (July 1 st 2009 to June 30 th 2010). % of research dollars spent on sustainability-focused projects: 3.69 %
Comparison	In the 2008 audit sustainable research (and environmental) received \$61, 017 or 8.72% of all research financing. Currently only \$28 801 or 3.69% of research financing goes towards sustainable projects. Faculty seem to have shifted their research focus to other domains in the past three years. However, this is still a substantial decrease in sustainable research financing and steps should be taken to increase the value of this indicator.
Recommendations	A value of this size is rather disappointing considering Bishop’s commitment to sustainability. However, this indicator depends on what Bishop’s faculty decides to focus their research on – which appears to be in domains other than sustainability. It should also be noted that while certain research is not focused on sustainability it may be undertaken in a sustainable manner and as with anything it may be able to be linked to sustainability in a roundabout way. As mentioned in the 2008 audit, funding designated solely for sustainable research may increase the probability of individuals applying for and researching in this domain.

K-17: Courses with Sustainability Content

CSAF Definition	Total number of courses that have "substantial sustainability content," divided by total number of courses; multiply by 100.
Purpose of Indicator	To assess Bishops commitment to providing its students the option of an education incorporating sustainable content

Bishops Situation	<p><i>Please see Appendix B: Criteria for Sustainable Courses for criteria used to determine which courses are considered to have substantial sustainability content.</i></p> <p>% of Bishops courses that have substantial sustainability content: 14.4%</p>
Comparison	<p>In the 2008 audit 0.024% of courses had substantial sustainable content, while 0.028% had strong environmental content. The current audit has a broader definition of sustainability (see <i>Appendix B: Criteria for Sustainable Courses</i>) which, among other elements, includes environmental content. Therefore it is very hard to compare the values between the previous and current audit which vary by more than 14%.</p> <p>The percentage of courses revised from previous years to include elements of sustainable development or the environment was not calculated in the 2008 audit, nor can it be done in the current audit due to the above mentioned deviations in criteria.</p>
Recommendations	<p>A fair percentage of courses contain sustainable content, however, this percentage should be enhanced through incorporating sustainable examples into existing curriculum. This will be facilitated if coupled with increasing faculty training and orientation on sustainable topics. Using examples and information obtained in these training sessions, faculty should be able to integrate local sustainable issues into their course curriculums.</p> <p>It should also be noted that the university is currently determining a set of strategic orientations. This involves providing a liberal education, at which time all current courses will be examined for strengths and weaknesses in this area. It is recommended that future sustainable interns work closely with the VP academic to ensure that sustainable topics be considered during this examination.</p>

Orientation 4: Governance

G-1: University Government Policies

CSAF Definition	<p>Total number of policies presents on campus from this list divided by total number of policies in this list; multiply by 100. Only policies of the university government should be included.</p> <ol style="list-style-type: none"> 1. Energy Management (efficiency measures, greenhouse gas reduction, and use of perpetual renewable sources) 2. Water Management (efficiency measures and reuse) 3. Clean Air (both in- and out-door) 4. Health and Safety 5. Ethical and Environmentally Sound Purchasing 6. Solid Waste Management (reduction, reuse and recycling measures) 7. Hazardous Waste Management (reduction, reuse and recycling measures) 8. Transportation Demand Management 9. Community Engagement in Campus Decision-making (both on- and off-campus communities) 10. Ethical and Environmentally Sound Investment. 11. Sustainability in Education (sustainability course content for all graduating students, strategies to meet this) 12. Sustainability in Research 13. Equity (gender, people with disabilities, and ethnic) 14. Wellness (fitness, safe work environment, spirituality, nutrition, alternative work arrangements) 15. Long-term Campus Land-use Planning (principles of smart growth, protection of green space, design for efficiency, community engagement) 16. University Mission (broad commitment to sustainability) 17. Strategic Plan (academic and administrative planning and positioning) 18. Preferential Purchase of Local Goods and Services 19. Conflict and Dispute Resolution processes (for both internal and external issues) <p style="padding-left: 40px;">If a particular policy covers more than one of the issues listed in depth, all of the issues covered should be counted. For example, if a campus has one Resource Efficiency policy that addresses energy, water, and solid waste, three points towards the total should be tallied.</p>
Purpose of Indicator	To assess the level at which Bishop’s integrates sustainable development into its policies.
Bishop’s Situation	<p>% of policies in the list that are also found in Bishop’s Universities policies: 73.7%</p> <p><i>To see the policies themselves please visit</i></p>

	http://www.ubishops.ca/administration-governance/university-policies/index.html
Comparison	In the 2008 audit points were only assigned to 11.5 elements but 13 elements were found to be present in Bishop's University Policies; this is equivalent to 68.4%. While this value is slightly lower than the value obtained in the current audit it should be noted that in the 2008 audit partial points were assigned to certain elements. A more stringent investigation was done in the previous audit, for example while a water management policy does exist due to a lack of water meters a point was not given for this policy in the previous audit. However, for the current audit the existence of such a policy is counted as it demonstrates the universities commitment to improving itself even without the means to measure this improvement.
Recommendations	Nearly $\frac{3}{4}$ of government policies contain the above mentioned sustainable content. It is recommended that university government policies be revised so that all the above areas of sustainability are integrated.

G-7: University Financing of Sustainability

CSAF Definition	Total annual dollars spent on staffing and operations of sustainability focused programs and initiatives from the list in G-6, divided by the total annual university budget (including operations and research/teaching); multiply by 100
Purpose of Indicator	To assess Bishops commitment to sustainability through funding of sustainability focused programs and initiatives.
Bishops Situation	This indicator was assessed using information from the 2009 fiscal year (July 1 st 2009 to June 30 th 2010). % of university budget spent on staffing and operations of sustainability focused programs and initiatives: 0.34 %
Comparison	The 2008 audit had no data for this indicator
Recommendations	With less than a single percent of the university budget spent on financing sustainable initiatives a lot of improvement needs to be done in this area. However it should be noted that this value does not include funding obtained from the green levy fund which takes \$2.50 from each student's fees each semester. This fund allows students to pursue sustainable initiatives that benefit all BU students. A partnership with the existing green levy fund, or a similar fund should be created, to allow BU employees to submit sustainable ideas. A sustainable officer position should also be created to oversee and help implement all campus sustainable initiatives. It should also be noted that the director of Buildings and Grounds,

among other tasks, functions as a resource person for all sustainable matters. Also, the Elizabeth Harvey sustainable development intern and to Kruger summer sustainable development intern position (as of summer 2011), allow students to become involved in sustainable issues affecting the university.

Orientation 5: Economy & Wealth

EW-2: Student Debt Load

CSAF Definition	Average debt per FTE graduating student with a government or bank loan, or line of credit, subtracted from the national average debt load (of students with a debt)
Purpose of Indicator	To determine the extent of financial burden carried by Bishops students upon graduation.
Bishops Situation	<p><i>This information is based on a survey sent to all Bishop’s CCMs in the Winter of 2011 (see Appendix E: Winter 2011 sustainable audit survey).</i></p> <p>Average debt of Bishop’s graduates above the national average debt load: -\$16, 284</p> <p><i>Please note calculations have been included in this document so the value can be more easily explained.</i></p> <p>A. Average debt per FTE graduating student: \$20, 716</p> <p>B. National average debt load: \$37, 000 (From Canadian Federation of Students. 2009. Canada’s Education Action Plan. Retrieved June 9th 2011 from http://www.cfs-fcee.ca/html/english/research/submissions/CFS-2009-Education-Action-Plan.pdf)</p>
Recommendations	The average Bishop’s student debt is 16 000\$ less than the national average per graduates. While this figure is promising it is only based on the 134 students who responded to a survey in the winter of 2011. This information is rather personal and thus it is not the universities place to force students to disclose such information. It is recommended that Bishop’s attempt to keep student debt at this figure so that its students are not financially burdened upon graduation. For example, Bishop’s should continue to offer scholarships, bursaries and student internships to help increase students financial independence.

EW-7: Wage Gap

CSAF Definition	Wage gap between highest and lowest paid employees calculated by dividing highest annual salary by lowest annual salary
Purpose of Indicator	To determine if an inequality of pay is afforded to Bishops University employees.
Bishops Situation	Difference in wage between highest and lowest paid employee: \$125 857
Recommendations	The wage gap between Bishop’s highest and lowest paid employees (excluding the principal) is quite reasonable compared to other regional, and even provincial, institutions. Due to the general size of Bishop’s wage offerings it is often difficult for the university to attract

	qualified individuals for its positions. No recommendations currently exist for this indicator.
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EW-15: Locally Purchased Goods and Services

CSAF Definition	Total annual dollars spent on locally provided, harvested, produced and/or manufactured goods and services divided by the total annual dollars spent on goods and services; multiply by 100. "Local" means within a 200 km radius of the campus
Purpose of Indicator	To determine Bishop’s commitment to supporting the local economy by purchasing its goods and services in the region.
Bishops Situation	<i>This indicator was only assessed in regards to Sodexo’s purchases.</i> % of annual dollars spent on goods and services that are on locally provided, harvested, produced and/or manufactured: 37.3%
Recommendations	Sodexo has worked hard to increase their local purchases and their hard work has paid off with 37.3% of the allocated budget spent on local services and goods. This is especially impressive due to the university’s rural and northern location. The seasonality of the climate does not allow fresh produce to be grown year round and therefore must be shipped from great distances. Sodexo is willing to continue purchasing locally but it needs proof that the CCMs are willing to have reduced variety (ex. Less fruit in winter) in order to increase their sustainability. Sodexo also mentions that this success was due in part to their sway with their supplier, Suprali. However, this supplier has been purchased by AOF, a larger supplier, and Sodexo fears their sway will diminish in this new relationship. It is recommended that food service clients undergo a survey to determine people’s commitment to sustainability versus their willingness to have a less varied food selection. The results of this survey should be used by Sodexo to assess the benefits of purchasing local versus customer satisfaction. It is recommended that Bishop’s attempt to keep a more detailed record of where all purchases, such as electronics, linens, chemicals, building supplies, are manufactured/produced/harvested in order to have more comprehensive data for this indicator in future years. It is also recommended that Bishop’s preferentially purchase goods and services locally and that such preferentiality be included in university government policies.

EW-17: Ethically and Environmentally Sound Investments

CSAF Definition	Total annual dollars invested by university and student administrations in ethical and environmentally responsible companies, divided by total annual invested dollars.
Purpose of Indicator	To explore Bishops corporate responsibility in terms of investments in ethically and environmentally responsible companies.
Bishops Situation	<p>This indicator was assessed using information from the 2009 fiscal year (July 1st 2009 to June 30th 2010).</p> <p>A: Fraction of the total annual dollars invested by university and student administrations that are invested in ethical and environmentally responsible companies: 0.88</p> <p><i>The following calculations are concerning the Bishop's University Foundations funds. This foundation is a separate entity from the university. It is funded by donations from Alumni and external sources and is a charitable foundation. The information is only included for interest.</i></p> <p>B: Fraction of the total annual dollars invested by the university foundation that are invested in ethical and environmentally responsible companies: 0.85</p>
Recommendations	With 88% of the universities funds invested in environmentally and ethically responsible companies, Bishop's is pursuing the correct path with its investments. It is recommended that Bishop's inspect its other investments and consider investing the other 12% in ethical and environmentally responsible companies.

Orientation 6: Water

W-1: Potable Water Consumed

CSAF Definition	Total annual volume of potable water consumed by the campus for all uses (in litres), divided by the total number of CCM's
Purpose of Indicator	To determine the average amount of potable water used per CCM on campus so that water conservation can be improved in the following years.
Bishop's Situation	No Data
Comparison	The 2008 audit had no data for this indicator as well.
Recommendations	<p>Bishops university does not currently have water meters with which to obtain the information required for this indicator. Thus it is highly recommended that Bishops University invests in such meters.</p> <p>In terms of water efficiency, Bishops currently has waterless urinals and efficient shower heads with touch control timers in the men's locker rooms at the Sports Price Center. Air conditioning units and refrigerators that used city water for cooling were removed from campus, except for two small refrigerators in biology. It is recommended they be removed in the coming years.</p> <p>With the new geothermal water heating system water meters to measure the 'make-up' water added to the system will be installed. These will be hooked to the electronic building controls and if a large amount of water is used an alarm will sound to notify personnel that a leak may be present.</p> <p>The W.B Scott Arena uses water for the compressors that make the ice. These compressors waste a large quantity of water and it is recommended that these be eliminated and that more effective and efficient alternatives should be installed in the new arena once built. It is also recommended that with the construction of the new sports center a water meter be installed at the main water pipe to track water consumption.</p>

W-7: Efficiency of Fixtures

CSAF Definition	Total number of new water fixtures installed annually that are of highest possible water efficiency rating for that year, divided by the total number of new fixtures installed in that year; multiply by 100
Purpose of Indicator	To assess the commitment of Bishops to water conservation by only using the most efficient fixtures when performing renovations or repairs.
Bishops Situation	% of water efficient fixtures installed: 0.0%

Recommendations	It is recommended that Bishop’s only purchase water efficient fixtures in the future to decrease water waste.
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W-9: Wastewater Produced

CSAF core definition	Total volume of wastewater (including grey- and black water) produced on campus annually in litres, divided by total number of CCM's
Purpose of Indicator	To determine Bishops University’s use of water on campus in relation to the number of CCM’s so that this may be improved upon in future years.
Bishops Situation	No Data
Recommendations	No recommendations exist at this time.

Orientation 7: Material

M-1: LEED Certified Base Buildings

CSAF Definition	Total number of base buildings completed in the previous three years that have been certified to LEED silver, gold or platinum standard, divided by the total number of buildings completed in the previous three years; multiply by 100
Purpose of Indicator	To assess the integration of Bishop's commitment to sustainability into building construction.
Bishops Situation	% of buildings completed in last 3 years that are LEED certified: 0.0%
Comparison	This indicator was 0% for the 2008 audit as well.
Recommendations	The renovation & constructions for the sports complex will conform to LEED guidelines and it is recommended that all future buildings be built following these guidelines as advised in Bishop's energy efficiency action plan (<i>to view the strategy please visit http://www.ubishops.ca/fileadmin/bishops_documents/services/SDLU/files/Energy-Efficiency-Action-Plan.pdf</i>).

M-3: Paper Consumption

CSAF Definition	Total pieces of paper of all types) purchased by all departments in the college each year, divided by the total number of CCM's.
Purpose of Indicator	To assess the average amount of paper used annually by each CCM.
Bishops Situation	Sheets of paper purchased per CCM: 1696.9 Weight of all paper purchased per CCM: 6.49 kg Sheets of paper purchased per EEETP: 1999.5 Weight of all paper purchased per EEETP: 7.65 kg
Comparison	In 2008, a ratio of 90.05 units of paper per student was obtained and the total weight of paper products purchased was 959 491.5 kg. This is the equivalent of 429.4 kg/EEETP, which is many scales off of the current value of 7.65 kg/EEETP. Using data from 2008 it was determined that 3 629 500 pieces of paper were purchased, meanwhile, for the current audit year (2010) 4 151 000 sheets of paper were purchased. Therefore discrepancies in paper weight conversions (not shown in the 2008 audit) must have caused the variation in this indicator.
Recommendations	It is recommended that Bishop's continue its use of moodle and the R: drive to reduce the use of paper for class work. It is also recommended that the university continue to move towards efficiency and technology to reduce the waste of paper. One example of an initiative that should be undertaken is concerning the work order program. Each time a work order is printed the bottom half of the page is not used. Printing two

	work orders per page would reduce this waste substantially. Eventually, with technology and the budget permitting, the printing of work orders could be completely eliminated using electronic devices.
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M-4: Recycled Content of Paper

CSAF Definition	Total percent post-consumer content of all tree-based paper used on campus each year. Postconsumer recycled paper counts as a factor of one, whereas post-industrial recycled paper counts as a factor of 0.5.
Purpose of Indicator	To assess Bishop’s purchasing of recycled paper in order to assure its commitment to sustainable practises.
Bishops Situation	% of paper products which are recycled: 80.2%
Comparison	In the 2008 audit the percentage of eco-friendly paper purchased was 40.90%. Therefore, the amount of recycled paper purchased has almost doubled in the last three years.
Recommendations	Paper products on campus are continuously becoming more sustainable, but many of the paper products contents are only partially recycled. It is recommended that bishop’s continue to preferentially purchase recycled paper products with the goal of only purchasing 100% recycled paper.

M-7: Local Food Production

CSAF Definition	Total amount of food (in dollars) that is locally produced, divided by total annual food budget; multiply by 100. “Local” means within a 200 kilometre radius of the campus.
Purpose of Indicator	To determine the extent of Bishop’s commitment to sustainability through local food purchasing.
Bishops Situation	% of food budget spent on locally produced food: 33.8%
Recommendations	As mentioned in the EW-15 indicator, Sodexo has worked hard to increases their local purchases. The same constraints apply to the continuous improvement of this indicator. As previously mentioned, it is recommended that Bishop’s perform a survey on their clients to determine people’s commitment to sustainability versus their willingness to have a less varied food selection. The results of this survey should be used by Sodexo to assess the benefits of purchasing local versus customer satisfaction.

M-9: Solid Waste and Recyclables Produced

CSAF Definition	Total weight of solid waste and recycling produced (in kilograms) annually, divided by the total number of CCMs.
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Purpose of Indicator	To determine the mass of waste and recyclables produced by Bishops University campus community members annually.
Bishops Situation	Total weight of solid waste and recycling produced annually per CCM: 115.95 kg
Comparison	The 2008 audit had no data for this indicator.
Recommendations	Such a high level of waste is upsetting for the university, even if some of it is recycled. As mentioned in the G3 indicator, the use of paper should be reduced as well as waste generated from all other aspects of university life. Also, to increase composting and recycling, an awareness campaign should be undergone each semester with better signage being installed at all composting and recycling stations.

M-11: Recyclables Being Landfilled

CSAF Definition	Total amount of recyclables (including organic wastes) by weight (in kilograms) contained in the waste destined for landfill or incineration, divided by the total weight (in kilograms) of all landfill waste; multiply by 100.
Purpose of Indicator	To assess the rigidity to which Bishops University campus community members recycle.
Bishops Situation	% of waste destined for landfill or incineration that is recyclable: ~ 33%.
Recommendations	Bishops University has not undergone a garbage audit in the recent past and thus the exact composition of the universities waste is unknown. Custodian supervisor Jean Vaillaincourt estimates the waste to be 33% recyclable. This number is unacceptably high and measures are being implemented to reduce this value. As mentioned in indicator M-7, clear and indicative signs should be installed in close proximity to all waste, recycling and composting stations so that people can easily understand the proper container in which to dispose of their waste. It is also recommended that all classroom hallways and employee offices have a recycling/waste receptacle installed as members of the SDAG committee have discussed in the spring of 2011.

Orientation 8: Air

A-7: Chemical Free Cleaning

CSAF Definition	Total square metres of indoor space always cleaned using a chemical free system, divided by the total interior square metres; multiply by 100
Purpose of Indicator	To assess Bishop's use of ecofriendly products in maintaining the internal campus environment.
Bishops Situation	% of indoor space always cleaned using a chemical free system: 0%
Comparison	63.64% of cleaning products were considered to be environmentally friendly in the 2008 audit. As recommended in the 2008 audit most of the remaining products have since been converted into environmentally friendly alternatives and 90% of cleaning supplies are now green.
Recommendations	The only chemical product used by the custodial services is a soft acid to soften the campuses hard water. The custodial supervisor stated that the soft acid will be replaced with an organic alternative once the universities water supply is connected to the town of Sherbrooke's water supply. A neutral soap is also currently used. It is recommended that the university attempt to find an organic or green certified alternative to the neutral soap and that the university continues to use as many organic and green cleaning supplies and systems as possible.

Orientation 9: Energy

E-1: Renewable Energy: Buildings

CSAF Definition	Total GJ of energy consumed annually by buildings for heating, ventilation, air conditioning, refrigeration and electrical systems from renewable sources, divided by the total GJ of energy consumed annually for the uses listed in the indicator; multiply by 100. Building energy should include energy used for exterior lighting and signage. “Renewable sources” means clean, non-nuclear, and perpetual renewable energy. Large-scale hydroelectricity is not considered renewable, although small-scale or micro-hydro is.
Purpose of Indicator	To determine how committed Bishop’s is to using renewable energy for power.
Bishops Situation	% of energy use that is renewable: 1.91%
Comparison	The amount of renewable energy used has increased from 1.58 % to 1.91%. The only additional source of renewable energy since 2008 is the solar panel on the roof of Hamilton which provides minimal energy. The real cause of this change in percentage is that Bishop’s energy consumption has decreased from 113 146 GJ/year to 93 500 GJ/yr. This variation in energy usage may exist due to the 2008 audit considering the houses located off campus, on Reid street and college street while the current audit did not consider these buildings energy usage.
Recommendations	Bishop’s has started taking significant steps to reduce its environmental impact related to energy consumption. The implementation of a geothermal heating system (occurring in 2010-2011) will provide 12 500 GJ of energy annually. It will also reduce Bishop’s natural gas consumption by 64% and its greenhouse gas production by 66%. For more information see <i>Appendix D: Comprehensive Energy Reduction and Building Renewal Program</i> . It is recommended that Bishop’s continue to move towards sustainable energy options, such as solar energy, to compliment the geothermal system being installed. It is also recommended that energy consumption be recorded in a detailed and comprehensive manner so that this information is readily available for future audits.

E-4: Greenhouse Gas Emissions: Buildings

CSAF Definition	Total energy (of all types) consumed (in GJ) each year for heating, cooling, ventilation, and electrical systems, converted into GHG equivalent (tons), and divided by total square metres of interior built space. <i>And also GHG equivalents per EEETP.</i>
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	Note: energy used for outdoor uses (lighting, signage, etc.) should be included in the energy use calculation, but will still be assessed relative to square metres of interior space.
Purpose of Indicator	To determine the amount of GHG equivalents produced per square meter of interior space and/or EEETP.
Bishops Situation	GHG equivalents per square meter of interior space: 41.56 kg CO ₂ eq/m ² GHG equivalents per EEETP: 1444.6 kg CO ₂ eq/EEETP
Comparison	The 2008 audit determined that 1892.74 GHG equivalents were produced per EEETP. It appears that the GHG emissions of the campus have been reduced by approximately 450 GHG equivalents. However, the GHG equivalent converting factor was not given in the 2008 audit and therefore the information in the 2008 audit and the current one may not be comparable.
Recommendations	It is recommended that Bishop's continue to reduce its GHG production. This can be accomplished by obtaining energy from clean, renewable resources such as solar energy. It is also recommended that Bishop's keep more thorough information on this indicator, especially with the help of the Ameresco engineers who are attached to the university through a ten year contract.

E-5: Greenhouse Gas Emissions: Commuting Transport

CSAF Definition	Total energy (of all types) consumed in GJ each year for commuting transportation, converted into GHG equivalent (tons), and divided by total number of CCMs in that year.
Purpose of Indicator	To assess the commitment of Bishop's CCMs to sustainability by using sustainable methods of transport traveling to and from campus.
Bishops Situation	No data.
Recommendations	The results of a survey sent to all CCMs were attempted to be used to calculate the energy used for commuting transport. However, an inadequate number of respondents and the variability of answers provided made this indicator impossible to assess. Rather than using this indicator for recommendations, the indicator <i>B.1: Accessibility to Alternative Transportation</i> , will be used as the reference to create recommendations for improvements at Bishop's.

E-8: Reduction in Energy Consumption

CSAF Definition	Total change in energy consumption (of all types) in GJ for building, commuting and fleet/grounds vehicle uses in current year over the 2008 year.
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Purpose of Indicator	To determine the headway campus has made in reducing energy consumption.
Bishops Situation	Change in energy consumption between the 2008 and 2010 calendar year: -11 067 GJ <i>The above value was obtained from Ameresco energy information excel sheet.</i>
Recommendations	A reduction of 11 067 GJ's is impressive considering the two years in which it happened. As previously mentioned in the E-1 indicator, the university should keep a more detailed record of energy use on campus so that the changes in this indicator can be better explained in future audits. It is also recommended that the university consider implementing an awareness campaign to educate students and staff on the impact of their energy consumption. For example staff should be advised of the savings generated by turning off lights and unplugging machines (eg. Printers) at night or when not in use.

Orientation 10: Land

L-1: Managed Green Spaces

CSAF Definition	Total hectares of managed green spaces, divided by the total on-campus green space (both managed and natural, including everything that is not built or that is permeable); multiply by 100. Note: the percent of total on-campus green spaces that is 'natural' can also be found here by subtracting the result of this indicator from 100.
Purpose of Indicator	To assess the division of campus green space between those deemed natural and those deemed managed.
Bishops Situation	A. % of campus green space that is managed: 62.15 % B: % of campus green space that is natural: 37.85%
Recommendations	With 62.15% of campus green space being managed, CCM's have adequate access to managed areas for recreation. With 37.85% of green space being natural, CCMs also have access to nature in its untouched form. It is recommended that potential uses for these green spaces and available equipment for these activities (ex. Snowshoes, bikes) be explained and promoted to increase CCM usage and thus health.

L-3: Pesticides

CSAF core definition	Total volume of solid and liquid pesticides (including both plant and animal poisons of all types) used annually (in liters), divided by the total hectares of managed green spaces.
Purpose of Indicator	To assess the use of pesticides by the university to maintain its green spaces.
Bishops Situation	Fraction of pesticides used per hectare of managed green space annually: 1.001 L/hectare
Comparison	In 2008 the use of pesticides was 0.0000212 L/m ² or 0.212 L/ha. A substantial increase in the use of pesticides appears to have occurred over the past three years. However it is possible that converting to organic pesticides may be the cause, as they often require greater amounts per application. Another potential cause is the fact that the 2008 audit did not consider pesticides used by Cameron for managing pests. Nonetheless without further information on causes for discrepancies any comparison would be ineffectual.
Recommendations	It is recommended that the university continue to convert all pesticide use to organic brands and to reduce the overall use of said pesticides if possible.

CREPUQ Indicators

A.2: Accessibility to Green Space

Definition	<p>A.2.1: CAMPUS: The number of square meters of green space on campus accessible to the ‘MCU’, divided by the total number of square meters of the campus.</p> <p>A.2.2: RADIUS of 1 km: The number of square meters of green space beyond the immediate campus, to a radius of 1 km (estimated).</p> <p>A.2.3: OFF CAMPUS: The number of square meters of green space belonging to the university (owned or leased), off campus.</p>
Purpose of Indicator	To assess the amount of green space, both on and off campus, accessible to campus community members so that they may enjoy the outdoors and nature.
Bishops Situation	<p>A.2.1: % of the campus that is covered by green space (a/b): 32.4%</p> <p>A.2.2: Square meters of green space within 1 km of campus: 1 915 640 m²</p> <p>A.2.3: Square meters of green space belonging to the university, off campus: 645 449.2 m²</p>
Comparison	<p>This indicator is hard to access as the definition of campus used for the 2011 audit may have been broader than the one used for the 2008 audit. For the current audit, all university land has been considered campus area for A.2.1 and A.2.2.</p> <p>Indicators A.2.1 and A.2.2 did not have values in the 2008 audit and therefore cannot be compared to the values calculated for the current audit. No purchases or sales in land owned by Bishop’s have occurred between 2008 and 2011 and thus the no change has been observed for the off-campus green space belonging to the university.</p>
Recommendations	It is recommended that the definition of off-campus land should be better defined for future audits to ensure consistency. Also, as mentioned in the HW-1 indicator, it is recommended that the university continue to promote the use of this green space and associated recreational equipment.

A.4: Health and Safety in the Workplace Training

Definition	A.4: The number of participants (staff and students) who have been involved in health and safety training divided by the EEETP, multiplied by 100.
Purpose of Indicator	To evaluate how committed Bishop’s is to the health and safety of its employees.
Bishops Situation	Information for this indicator is based on the 2010-2011 academic year.

	% of participant's who have been involved in health and safety training per EEETP: 12.85%
Comparison	In the 2008 audit this indicator received a value of 0% due to a lack of information. With greater access to this information a value of 12.85% was obtained for the current audit showing an impressive increase in data accessibility. However it should be noted that some double counting may have occurred in the current audit as some students may have been in multiple lab courses (ex. biology and chemistry).
Recommendations	It is recommended that Bishop's continuously increase the number of students and staff who participate in such training as it is always beneficial for individuals to be aware of risks and safeties. Lab technicians should continue to offer safety training to students during introduction courses and staff should be obliged to undergo routine updating of any existing training.

B.1: Accessibility to Alternative Transportation for Free or at Reasonable Price

Definition	B.1: The total number of MCU's who use alternative transport to get to the university divided by the total MCU's x 100.
Purpose of Indicator	To assess the commitment of university community members to sustainability, specifically in the use of alternative transportation to get to and from campus.
Bishops Situation	<i>Information for this indicator is based on data from the 2010-2011 academic year.</i> Percent of MCU's who use alternative transport to get to the university: 55.6%
Comparison	In the 2008 audit, 65.14% of MCU's used alternative transport, while in the current audit 55.6% of MCU's use alternative transport. This decrease is quite substantial and represents an increase in parking pass purchases by MCU's.
Recommendations	Gaiter gear, the on campus bike share program, should be promoted as an alternative to driving to campus. It is also recommended that a carpooling system (ex. Allostop) and a partnership with the Societe de Transport Sherbrooke (as mentioned in C-25) could persuaded CCMs to arrive at campus in a more sustainable manner.

D.2: Sustainable Development or Environmental Action Plans

Definition	D.2.1: The university possesses a sustainable development or Environmental Action Plan. D.2.2: The number of elements (out of 19) which are included in this plan.
Purpose of Indicator	To determine if the university possesses a functional, comprehensive

	Environmental Action Plan.
Bishops Situation	D.2.1: The university possesses a sustainable development or Environmental action plan: Yes D.2.2: Number of elements which are included in this plan: 15/19 <i>To view the current sustainable action plan, please visit http://www.ubishops.ca/fileadmin/bishops_documents/services/SDLU/files/SDLU-action-plan-jan23-2009.pdf</i>
Comparison	In the 2008 audit a value of 13 was assigned to this indicator. Slight variations exist between the 2008 and current audit concerning if an element should be included in the plan. In the 2008 audit, water management was not considered to be in the plan because of a lack of water meters on campus. However, water management was considered to be present in the action plan for the current audit as the element is present in the policy none the less and demonstrates the universities commitment to water preservation even if the university does not have the mean to measure this. As the same action plan is still in use, the number of elements should remain the same between these audits and thus no improvement has occurred in this indicator since 2008.
Recommendations	It is recommended that the Bishop's sustainable development action plan be revised and updated considering all recommendations in this audit and to include all nineteen of the elements mentioned in this indicator.

D.3: University Employees Responsible for Sustainable Development or Environmental Initiatives

Definition	D.3: The total number of employees responsible for the implementation of sustainable development or environmental initiatives divided by the EEETP.
Purpose of Indicator	To determine the universities commitment to the implementation of sustainable initiatives in terms on manpower.
Bishops Situation	Fraction of Employees that are responsible for the implementation of sustainable development or environmental initiatives per EEETP: 0.0077
Comparison	In the 2008 audit a fraction of 0.0022 was obtained. This value is more than three times smaller than in the current audit. The increase in this value illustrates that Bishop's is heading towards a more sustainable future.
Recommendations	It is recommended that Bishop's continue to incorporate sustainability and its associated responsibilities into all employee positions. As previously mentioned, Bishop's should hire a sustainable officer to

	oversee and help implement sustainable initiatives.
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E.1: University Financial Aid for Students

Definition	E.1: The total internal budget reserved for student aid, divided by the EEETP.
Purpose of Indicator	To determine the amount of internal financial aid available to Bishop’s University students.
Bishops Situation	Total internal budget for student aid per EEETP: \$461.61 <i>This value includes funds transferred from the university foundation to the university itself.</i>
Comparison	The internal budget for student aid has increased \$26.78 per student, from \$434.83 in the 2008 audit.
Recommendations	It is recommended that Bishop’s continue to seek financial aid from alumni and donors to continue offering scholarships, bursaries and awards to its students.

H.1: Live Indoor Plants

Definition	H.1: Total number of live indoor plants, without the blooming period, divided by the total indoor space, in meters squared
Purpose of Indicator	To assess the internal working conditions of the university in regards to air quality and natural beauty.
Bishops Situation	<i>Information for this indicator was obtained from a campus wide survey sent in the summer of 2011.</i> Number of indoor plants per square meter of indoor space: 0.0013
Comparison	In the 2008 audit there were 0.0019 plants per m ² , this value is greater than the current value of 0.0013 plants per m ² . As information was collected via email replies in both audits the accuracy of the values are dependent on the number of respondents. The number of respondents in the 2008 audit was not noted, 62 responses were obtained for the current audit.
Recommendations	It is recommended that Bishop’s promote the installation of air filtering plants (without blooming periods) in all classrooms and offices. It is recommended that Bishop’s explain the benefits of having indoor air filtering plants to all employees, specifically non blooming plants so as to avoid discomforting peers with allergies.

H.3: Number of Trees on Campus

Definition	H.3: Total number of live trees on campus (including natural and manicured areas), divided by the total surface area of the campus (in square meters).
Purpose of Indicator	To assess the number of trees on campus available to community

	members for aesthetics, clean air and an enriched environment.
Bishops Situation	Number of live trees per square meter of campus area: 0.00109
Comparison	The 2008 audit was unable to calculate a value for this indicator due to the extensiveness of campus area.
Recommendations	A recent survey of trees on the manicured area of campus was used to determine the number of trees. The value obtained does not consider trees found on natural areas even though some are contained within the value used as the surface area of the immediate campus. Therefore the value of 0.00109 does not represent the exact number of the live trees per square meter of campus area but is an estimate upon which to improve. Bishop's should continue to plant trees on campus to increase aesthetic appeal and to reduce the campuses carbon footprint.

I.1: Use of Energy for Buildings of All Types

Definition	I.1: Total quantity of energy consumed (in Gigajoules) each year, divided by the total indoor space in meters squared. Taking consideration of the areas which consume greater energy. Calculate the ratio by dividing by the EEETP.
Purpose of Indicator	To understand how much energy is used per EEETP and indoor space.
Bishops Situation	Energy consumed per square meter of indoor space per EEETP: 0.000618 GJ/ m ² /EEETP
Comparison	In the 2008 audit a value of 0.000613 was obtained which is slightly lower than the current value of 0.000618. This indicates that a slight increase in energy per area and per student has occurred.
Recommendations	As mentioned in the 2008 audit, it is recommended that a comprehensive and detailed assessment of energy usage should be undergone.

I.3: Use of Energy for Vehicles and Non-stationary Equipment

Definition	I.3: Total amount of energy (of all types) consumed by the campus vehicles and equipment as a ratio by dividing by the EEETP.
Purpose of Indicator	To determine the amount of energy used by campus vehicles and non-stationary equipment per EEETP.
Bishops Situation	Energy consumed by campus vehicles and equipment per EEETP: 543.81 GJ/EEETP
Comparison	In the 2008 audit 0.2785 GJ per EEETP was calculated. However, the conversion factors used in the 2008 audit were to convert from dollar amounts into GJ's rather than from liters. In the 2008 audit 11 795.5 L of unleaded gas and 5597.3 Litres of diesel were purchased. This is significantly lower than the amount purchased in the 2010 fiscal year:

	18 580.7 L of unleaded gasoline and 12 677.8 L of Diesel. This is equivalent to a 63% increase in unleaded gasoline purchases and a 44% increase in diesel purchases.
Recommendations	It is recommended that the university investigate electric vehicles as well as fuel efficient ones when making future purchases. It is also recommended that existing vehicles continue to undergo regular inspection to ensure they are running optimally.

J.1: Use of Inorganic Fertilizers

Definition	J.1: Total weight (in Kg) of inorganic solid or liquid fertilizers used annually, divided by the total area of the campus in meters squared.
Purpose of Indicator	To assess the degree to which Bishop's maintains and enriches its environment in an environmentally friendly manner.
Bishops Situation	Inorganic fertilizers used per meter of campus: 0.0 L/m ²
Comparison	In the 2008 audit no information was available concerning the amount of fertilizers used by the Lennoxville golf course and it was decided that not enough information was available for this indicator. The use of fertilizers has since increased on campus; however both the campus and golf course now use organic fertilizers and keep well documented records of all usage.
Recommendations	It is recommended that the university continue to only use organic fertilizers so as to keep its environmental impact minimal.

J.3: Various Terrains on Campus

Definition	J.3: Total surface area (m ³): - Natural Space - Manicured Green Space - Constructed Areas - Parking Space Divided by the total area of the campus, multiplied by 100.
Purpose of Indicator	To understand the division of campus land into the above mentioned areas.
Bishops Situation	A: % of campus that is natural space: 36.5 % B: % of campus that is manicured green space: 59.9 % C: % of campus that is constructed area: 2.0 % D: % of campus that is parking spaces: 1.6 %
Comparison	In the 2008 audit 2.18% of the campus was considered constructed area and 2.21% of the campus was considered parking spaces. These values seem to suggest that these areas have shrunk in the last three years, but as this is not the case a different overall campus area must

	have been used during the 2008 calculations. No data was available for natural space and manicured green space in the 2008 audit.
Recommendations	It is recommended that the university maintain a high percentage of green space, while still meeting the parking and facility needs of the university. It should also be noted that a call for tender concerning the creation of a campus Masterplan was sent out in the spring of this year; this campus Masterplan will also be useful in future campus development.

J.4: Density of Constructed Area

Definition	J.4: Total Area (m ²) of constructions (all floors of all buildings), divided by the overall imprint of the buildings on campus (m ²).
Purpose of Indicator	To determine the imprint of buildings on campus versus their total area, and thus their efficacy.
Bishops Situation	Area of constructions per area of buildings on campus: 2.13
Comparison	The density of constructions per area of buildings on campus appears to have decreased from 2.6904 in 2008 to 2.13 for the current audit. This could be due to differences in calculations. For example while the 2011 audit included Houses on Harold and Mackinnon Drive, the 2008 audit did not.
Recommendations	It is recommended that future campus development take the density of constructed areas into consideration so as to minimize the impact of these developments on the existing landscape. The campus Masterplan, mentioned in the previous indicator, will also be helpful when developing campus land in the future.

APPENDIX A: CALCULATIONS

Orientation 1: Health & Wellness

HW-1: Recreational Space

CSAF Definition	Total square meters dedicated to recreation uses (both in- and outdoor to be included) divided by total campus square meters; multiply by 100																																																														
Calculations	<p>Areas were calculated from campus building plans obtained from the Buildings and Grounds department. The sports field's areas were estimated using orthophotos measured in ArcGIS.</p> <p>A: % Interior recreational space on campus</p> <p>a. Internal recreational space on campus: 16 103.11 m²</p> <table border="1" style="margin-left: 40px;"> <thead> <tr> <th>Recreational Space</th> <th>Area</th> </tr> </thead> <tbody> <tr> <td>Sports Complex</td> <td>8133.1 m²</td> </tr> <tr> <td>Arena</td> <td>3 301.5 m²</td> </tr> <tr> <td>Golf Center</td> <td>614.53 m²</td> </tr> <tr> <td>Centennial Theater</td> <td>3315.7 m²</td> </tr> <tr> <td>Turner Studio/Foremen art Gallery</td> <td>738.28 m²</td> </tr> <tr> <td>Total</td> <td>16 103.11</td> </tr> </tbody> </table> <p>b. Total campus area: 1 931 465.48 m²</p> <table border="1" style="margin-left: 40px;"> <thead> <tr> <th>#</th> <th>Lot Number</th> <th>Area</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2 444 506</td> <td>203 909.80 m²</td> </tr> <tr> <td>2</td> <td>2 445 764</td> <td>31 247.40 m²</td> </tr> <tr> <td>3</td> <td>2 446 147</td> <td>22 645.30 m²</td> </tr> <tr> <td>4</td> <td>2 446 769</td> <td>77 450.78 m²</td> </tr> <tr> <td>5</td> <td>2 446 780</td> <td>524 753.00 m²</td> </tr> <tr> <td>6</td> <td>2 446 785</td> <td>2 140.30 m²</td> </tr> <tr> <td>7</td> <td>2 446 789</td> <td>720 683.00 m²</td> </tr> <tr> <td>8</td> <td>2 446 790</td> <td>6 721.30 m²</td> </tr> <tr> <td>9</td> <td>2 447 080</td> <td>267 701.50 m²</td> </tr> <tr> <td>10</td> <td>2 447 081</td> <td>42 863.40 m²</td> </tr> <tr> <td>11</td> <td>2 447 084</td> <td>21 650.90 m²</td> </tr> <tr> <td>12</td> <td>2 447 245</td> <td>6 553.60 m²</td> </tr> <tr> <td>13</td> <td>2 446 246</td> <td>1 096.90 m²</td> </tr> <tr> <td>14</td> <td>2 447 357</td> <td>2 048.30 m²</td> </tr> <tr> <td></td> <td>TOTAL</td> <td>1 931 465.48 m²</td> </tr> </tbody> </table> <p>c. % Interior recreational space on campus [(a/b)*100]: 0.83%</p> <p>d. Interior space on Campus: 82 756 m²</p> <p>e. % interior space on campus used for recreation [(a/d)*100]: 19.5%</p> <p>B: % Exterior recreational space on campus</p> <p>d. External recreational space on campus: 334 636.00 m²</p>	Recreational Space	Area	Sports Complex	8133.1 m ²	Arena	3 301.5 m ²	Golf Center	614.53 m ²	Centennial Theater	3315.7 m ²	Turner Studio/Foremen art Gallery	738.28 m ²	Total	16 103.11	#	Lot Number	Area	1	2 444 506	203 909.80 m ²	2	2 445 764	31 247.40 m ²	3	2 446 147	22 645.30 m ²	4	2 446 769	77 450.78 m ²	5	2 446 780	524 753.00 m ²	6	2 446 785	2 140.30 m ²	7	2 446 789	720 683.00 m ²	8	2 446 790	6 721.30 m ²	9	2 447 080	267 701.50 m ²	10	2 447 081	42 863.40 m ²	11	2 447 084	21 650.90 m ²	12	2 447 245	6 553.60 m ²	13	2 446 246	1 096.90 m ²	14	2 447 357	2 048.30 m ²		TOTAL	1 931 465.48 m²
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Recreational Space	Area
Clouter Field	11 000.00 m ²
Football Stadium	958.80 m ²
Optimus Park	16 747.20 m ²
Champlain Field	5 500.00 m ²
Soccer Field	350.00 m ²
Practise Field 1	5800.00 m ²
Practise Field 2	31 500.00 m ²
Practise Field 3	250.00 m ²
Tennis Court	450.00 m ²
Outdoor Pool	80.00 m ²
Golf Course	262 000.00 m ²
TOTAL	334 636.00 m²

f. % Exterior recreational space on campus [(d/b)*100]: 17.33%

C: % Total recreational space on campus:

g. Total recreational space on campus [(a+d)]: 350739.11 m²

h. % Total recreational space on campus [(g/b)*100]: 18.16 %

HW-3: Diet Types

CSAF Definition	Total annual number of meal servings (i.e. breakfast, lunch and/or dinner) provided by all food service outlets on-campus that have all listed diet types provided for in the serving, divided by total number of meal servings provided by all food services each year; multiply by 100. Different diet types include: regular, vegan, vegetarian (lacto ovo), kosher, Hindu, Muslim, diabetic, gluten free, and low calorie, cholesterol and salt.
Calculations	Information retrieved from consulting Sodexo's Food and Beverage Manager. A: Total annual number of meal servings (i.e. breakfast, lunch and/or dinner) provided by all food service outlets on-campus that have all listed diet types provided for in the serving: 428 756 B: Total number of meal servings provided by all food services each year: 532 384 C: % of annual meal servings that have all listed diet types provided for in the serving [(a/b)*100]: 80.5%

HW-5: Organic, Non-GMO, Fair Trade Food

CSAF Definition	Total annual dollar value of certified organic, and/or non-genetically modified, and/or fairly traded food products, divided by the total annual food budget; multiply by 100. Note: if a food meets two or more of the categories, it should only be counted once.
Calculations	Information for this indicator was obtained by consulting Sodexo's Food and Beverage Manager.

APPENDIX A: CALCULATIONS

	<p>A: Total annual dollar value of certified organic, and/or non-genetically modified, and/or fairly traded food products: \$9 458</p> <p>B: Total annual food budget: \$1 083 000</p> <p>C: % of food budget spent on certified organic, and/or non-genetically modified, and/or fairly traded food products $[(a/b)*100]$: 0.87%</p>
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HW-9: Physical Health Care Practitioners

CSAF Definition	Total number of certified FTE physical health care professionals on-campus in assessment year (doctors, nurses, naturopaths, physiotherapists, etc.) divided by the total number of CCM's.
Calculations	<p>A: Number of certified FTE physical health care professionals on-campus: 2 Bishop's only employs two full time nurses, while the doctor and 4 physiotherapists are employed by other agencies.</p> <p>B: Total number of CCMs: 2458 The 372 employees includes sessional and contract faculty. 372 employees + 2086 Students = 2458</p> <p>C: % of certified FTE physical health care professionals on-campus per CCM $[(a/b)*100]$: 0.081 %</p>

HW-12: Mental Health Care Practitioners

CSAF Definition	Total number of certified FTE mental health care professionals on-campus in assessment year (psychiatrists, psychologists, counsellors, etc.) divided by the total number of CCM's.
Purpose of Indicator	<p>A: Number of certified FTE mental health care professionals on-campus: 2 Bishop's employs two certified psychologists/counsellors. Employees also include a coordinator of students with disabilities as well as a career and employment officer; however, as these individuals are not certified they were not included.</p> <p>B: Total number of CCMs: 2458</p> <p>C: % of certified FTE mental health care professionals on-campus per CCM $[(a/b)*100]$: 0.081%</p>

HW-17: Accessible Green Spaces

CSAF Definition	Total hectares of green spaces accessible to CCM's within 1 kilometer of campus (both on- and off-campus) in assessment year divided by the total number of CCM's; multiply by 100.				
Calculations	<p>A: Hectares of green space within 1 km of campus: 191.564 hectares This area was calculated using orthophotos of the campus and surrounding area.</p> <table border="1"> <thead> <tr> <th><i>Type & Region</i></th> <th><i>Area</i></th> </tr> </thead> <tbody> <tr> <td>Natural Green Space Off-Campus</td> <td>20.569 ha</td> </tr> </tbody> </table>	<i>Type & Region</i>	<i>Area</i>	Natural Green Space Off-Campus	20.569 ha
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Natural Green Space Off-Campus	20.569 ha				

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Natural Green Space On-Campus	62.496 ha
Managed Green Space Off-Campus	5.903 ha
Managed Green Space On-Campus (including sports fields and golf course)	102.596 ha
<u>TOTAL</u>	191.564 ha

B: Total CCMs: 2458

C: % of a hectare of green space within 1 km of campus per CCM $[(a/b)*100]$:
7.79 %

APPENDIX A: CALCULATIONS

Orientation 2: Community

C-1: Volunteerism

CSAF Definition	Total annual number of CCMs who volunteer at least 2 hours per week divided by the total number of CCMs, and multiplied by 100. Volunteering can be with one, or several different groups working on any issue but must be based on-campus. Organizations actively working against the concepts of sustainability (i.e. racial discrimination, waste of resources, etc.) shall not be included, and double counting of people should be avoided.
Calculations	This information was obtained through a survey that was sent to all campus community members. A total of 134 students, and 175 employees responded to the survey for a total of 309. The data obtained is being considered representative. A: Total annual number of CCMs who volunteer at least 2 hours per week: 62 B: Total number of CCMs : 309 C: % of CCMs who volunteer at least 2 hours per week $[(a/b)*100]$: 20.1%

C-6: Voter turnout

CSAF Definition	Number of student voters in most recent student election (of any type), divided by total number of eligible voters; multiply by 100. If more than one election was held in the previous year, average the voter turnout results.
Calculations	Information is obtained from the Chief Returning Officer of the SRC. A: % voter turnout for student representative council election (Spring 2010): 39.9% (745 voters) B: % voter turnout for student event coordinator & student affairs representative elections (Spring 2010): 12.9% (246 voters) C: % voter turnout for on-campus election (Fall 2010): 44.6% (296 voters) D: Average % voter turnout for 2010 calendar year $[(a+b+c)/3]$: 32.5 %

C-7/8: Employees with Disabilities

Definition	Summarization & modification of CSAF indicators C-7 and C-8. Percent of FTE employees (staff & faculty) with physical and/or mental disabilities. Subtract the national population average of people of working age with disabilities from the percent.
Calculations	The information for this indicator was obtained from a survey sent to all CCM's in the winter of 2011. A total of 175 employees replied. Due to a lack of response this indicator was not considered representative. The results of the survey were used in the calculations below but are only for interest and are not to be included for analysis in the audit document. A. # of FTE employees with physical and/or mental disabilities: 2 B. Total # of employees: 175 C: % of FTE employees with physical and/or mental disabilities $[(a/b)*100]$:

APPENDIX A: CALCULATIONS

	<p>1.1%</p> <p>D: National population average of people of working age with disabilities: 8.2%</p> <p style="text-align: center;">(Obtained from landscape of Literacy and Disability. 2008. Chapter 4. Retrieved June 9th 2011 from http://www.abilities.ca/landscape/Chapter4.pdf)</p> <p>E: % of FTE employees with physical and/or mental disabilities above the national average (c-d): -7.1%</p>
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C-9: Students with Disabilities

CSAF Definition	<p>Modification of CSAF indicator C-9.</p> <p>Percent of FTE students with physical and/or mental disabilities from each department on campus. Subtract the national population average of people of working age with disabilities from the percent.</p>
Calculations	<p>Data obtained from the campus coordinator for students with disabilities.</p> <p>A: FTE students with physical and/or mental disabilities in Arts & Science: 69</p> <p>B: FTE students with physical and/or mental disabilities in Business: 16</p> <p>C: FTE students with physical and/or mental disabilities in education: 13</p> <p>D: FTE students with physical and/or mental disabilities: 98</p> <p>E: FTE students in Arts & Science: 1416</p> <p>F: FTE students in Business: 508</p> <p>G: FTE students in Education: 354</p> <p>H: Total number of FTE students: 2086</p> <p>I: % of FTE students with physical and/or mental disabilities in Arts & Science [(a/e)*100]: 4.9%</p> <p>J: % of FTE students with physical and/or mental disabilities in Business [(b/f)*100]: 3.1%</p> <p>K: % of FTE students with physical and/or mental disabilities in Education [(c/g)*100]: 3.7%</p> <p>L: Total % of FTE students with physical and/or mental disabilities [(d/h)*100]: 4.7%</p> <p>M: National population average of people of working age with disabilities: 8.2%</p> <p style="text-align: center;">(Obtained from landscape of Literacy and Disability. 2008. Chapter 4. Retrieved June 9th 2011 from http://www.abilities.ca/landscape/Chapter4.pdf)</p> <p>N: % of FTE students with physical and/or mental disabilities in Arts & Science above the national average (I-M): -3.3%</p> <p>O: % of FTE students with physical and/or mental disabilities in Business above the national average (J-M): -5.1%</p> <p>P: % of FTE students with physical and/or mental disabilities in Education above the national average (K-M): -4.5%</p> <p>Q: Total % of FTE students with physical and/or mental disabilities above the national average (L-M): -3.5%</p>

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C-10/11: Employees of Ethnic Minorities

CSAF Definition	Summarization and modification of CSAF indicators C-10 and C-11. Percent of FTE employees (staff & faculty) that self-identify as a member of an ethnic minority. Subtract the national population average of people of working age that self-identify as a member of an ethnic minority from the percent.
Purpose of Indicator	<p>The information for this indicator was obtained from a survey sent to all CCM's in the winter of 2011. A total of 175 employees replied and due to a lack of response this indicator was not considered representative. The results of the survey were used in the calculations below but are only for interest and are not to be included for analysis in the audit document.</p> <p>A. # of FTE employees that self-identify as a member of an ethnic minority: 10 B. Total # of employees: 175 C: % of FTE employees that self-identify as a member of an ethnic minority [(a/b)*100]: 5.7% D: National population average of people of working age that self-identify as a member of an ethnic minority: 11.8% <small>(From Catalyst. 2011. Visible Minorities. Retrieved June 9th 2011 from http://www.catalyst.org/publication/243/visible-minorities).</small> E: % of FTE employees that self-identify as a member of an ethnic minority above the national population average (c-d): -6.1%</p>

C-12: Students of Ethnic Minorities

CSAF Definition	Modification of CSAF indicator C-12. Percent of FTE students with physical and/or mental disabilities from each department on campus. Subtract the national population average of people of working age that self-identify as a member of an ethnic minority from the percent.
Calculations	<p>The information for this indicator was obtained from a survey sent to all CCM's in the winter of 2011. A total of 134 students replied and due to a lack of response this indicator was not considered representative. The results of the survey were used in the calculations below but are only for interest and are not to be included for analysis in the audit document.</p> <p>A. FTE students that self-identify as a member of an ethnic minority in Arts & Science: 5 B: FTE students that self-identify as a member of an ethnic minority in Business: 2 C: FTE students that self-identify as a member of an ethnic minority in education: 1 D: FTE students that self-identify as a member of an ethnic minority: 8 E: FTE students in Arts & Science: 76</p>

APPENDIX A: CALCULATIONS

F: FTE students in Business: 30
G: FTE students in Education: 27
H: Total number of FTE students: 134
I: % of FTE students that self-identify as a member of an ethnic minority in Arts & Science [(a/e)*100]: 6.6%
J: % of FTE students that self-identify as a member of an ethnic minority in Business [(b/f)*100]: 6.6%
K: % of FTE that self-identify as a member of an ethnic minority in Education [(c/g)*100]: 3.7%
L: Total % of FTE students that self-identify as a member of an ethnic minority [(d/h)*100]: 6.0%
M: National population average of people of working age that self-identify as a member of an ethnic minority: 11.8%
(From Catalyst. 2011. Visible Minorities. Retrieved June 9 th 2011 from http://www.catalyst.org/publication/243/visible-minorities)
N: % of FTE students that self-identify as a member of an ethnic minority in Arts & Science above the national population average (i-m): -5.2%
J: % of FTE students that self-identify as a member of an ethnic minority in Business above the national population average (j-m): -5.2%
K: % of FTE that self-identify as a member of an ethnic minority in Education above the national population average (k-m): -8.1%
L: Total % of FTE students that self-identify as a member of an ethnic minority above the national population average (l-m): -5.8%

C-13/14: Employee Gender

CSAF Definition	Summarization and modification of CSAF indicators C-13 and C-14 Percent of FTE employees (staff and faculty) that are female.
Calculations	This information is obtained from the human resources officer. A. # of FTE employees that are female: 173 B. Total # of employees: 372 C: % of FTE employees that are female [(a/b)*100]: 46.5%

C-15: Student Gender

CSAF Definition	Modification of CSAF Indicator C-15. Percent of FTE female students in each department on campus.
Calculations	The data for this indicator was obtained from the campus records office. Please note the small discrepancy between the EEETP and FTE students in this indicator, 192, is due to students pursuing double majors. A: FTE students that are women in Arts & Science: 822 B: FTE students that are women in Business: 207 C: FTE students that are women in education: 288 D: FTE students that are women: 1317

APPENDIX A: CALCULATIONS

E: FTE students in Arts & Science:1416
F: FTE students in Business: 508
G: FTE students in Education: 354
H: Total number of FTE students: 2278
I: % of FTE students that are women in Arts & Science [(a/e)*100]: 58.0%
J: % of FTE students that are women in Business [(b/f)*100]: 40.1%
K: % of FTE that are women in education [(c/g)*100]: 81.4%
L: Total % of FTE students that are women [(d/h)*100]: 57.8%

C-16/17: Equity of Indigenous People: Employees

CSAF Definition	Summarization and modification of CSAF Indicators C-16 and C-17. Percent of employees that self-identify as Indigenous Peoples. Subtract the national population average of people of working age that self-identify as Indigenous Peoples from the percent.
Calculations	<p>The information for this indicator was obtained from a survey sent to all CCM's in the winter of 2011. A total of 175 employees replied and due to a lack of response this indicator was not considered representative. The results of the survey were used in the calculations below but are only for interest and are not to be included for analysis in the audit document.</p> <p>A. # of FTE employees that self-identify as Indigenous Peoples: 2</p> <p>B. Total # of employees: 175</p> <p>C: % of FTE employees that self-identify as Indigenous Peoples [(a/b)*100]: 1.1%</p> <p>D: National population average of people of working age that self-identify as Indigenous Peoples: 2.2%</p> <p style="padding-left: 40px;">(From Canadian Council of Social Development. 2004. Stats & Facts: Demographic Profile of Canada. Retrieved June 9th 2011 from www.ccsd.ca/factsheets/)</p> <p>E: % of FTE employees that self-identify as Indigenous Peoples above the national population average (c-d): -1.1%</p>

C-18: Equity of Indigenous Peoples: Students

CSAF Definition	Modification of CSAF Indicator C-18. Percent of students that self-identify as Indigenous Peoples from each department on campus.
Calculations	<p>The information for this indicator was obtained from a survey sent to all CCM's in the winter of 2011. A total of 134 students replied and due to a lack of response this indicator was not considered representative. The results of the survey were used in the calculations below but are only for interest and are not to be included for analysis in the audit document.</p> <p>A: FTE students that self-identify as Indigenous Peoples in Arts & Science: 3</p> <p>B: FTE students that self-identify as Indigenous Peoples in Business: 0</p>

APPENDIX A: CALCULATIONS

C: FTE students that self-identify as Indigenous Peoples in education: 0 D: FTE students that self-identify as Indigenous Peoples: 3 E: FTE students in Arts & Science: 76 F: FTE students in Business: 30 G: FTE students in Education: 27 H: Total number of FTE students: 134 I: % of FTE students that self-identify as Indigenous Peoples in Arts & Science [(a/e)*100]: 3.9% J: % of FTE students that self-identify as Indigenous Peoples in Business [(b/f)*100]: 0% K: % of FTE that self-identify as Indigenous Peoples in Education [(c/g)*100]: 0% L: Total % of FTE students that self-identify as Indigenous Peoples: [(d/h)*100]: 2.2% M: National population average of people of working age that self-identify as Indigenous Peoples: 2.2% (From Canadian Council of Social Development. 2004. Stats & Facts: Demographic Profile of Canada. Retrieved June 9 th 2011 from www.ccsd.ca/factsheets/) N: % of FTE students that self-identify as Indigenous Peoples in Arts & Science above the national population average (i-m): 1.7% O: % of FTE students that self-identify as Indigenous Peoples in Business (j-m) above the national population average: -2.2% P: % of FTE that self-identify as Indigenous Peoples in Education (k-m) above the national population average: -2.2% Q: Total % of FTE students that self-identify as Indigenous Peoples above the national population average (l-m): 0.0%

C-25: Affordability of Public Transport

CSAF Definition	Total annual cost of providing all CCM's with public transit passes for their time on campus, subtract total amount of money spent by university and student administrations on public transit subsidies each year. Divide this difference by the total annual cost of providing all CCM's with public transit passes; multiply by 100
Calculations	A: Total number of CCM's: 2458 B: Cost of public transit pass per CCM: \$64.00 (information from the Société de transport de Sherbrooke) C: Cost of providing all CCMs with public transit passes (a*b): \$ 157 312 D. Total amount of money spent on public transit subsidies: 0.00\$ E: % increase in annual transport budget for providing all Campus community members with public transport passes ([(c-d)/c] * 100): 100%

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Orientation 3: Knowledge

K-1: New faculty Orientation

CSAF Definition	Total annual number of new FTE faculty receiving at least 1 hour of in-person orientation to campus and local community environment/social issues divided by the total number of new FTE faculty members arriving on-campus in that year, multiply by 100
Purpose of Indicator	A: Total annual number of new FTE faculty receiving at least 1 hour of in-person orientation to campus and local community environment/social issues: 0 B: Total number of new FTE faculty members arriving on-campus in that year: 3 C: % of new FTE faculty receiving at least 1 hour of in-person orientation to campus and local community environment/social issues $[(a/b)*100]$: 0.0%

K-4: Faculty Sustainability Training

CSAF Definition	Total annual number of training hours dedicated to sustainability topics (including on- and off-campus workshops, seminars, conferences, etc.) for faculty members divided by the total number of FTE faculty
Calculations	A: Total annual number of training hours dedicated to sustainability topics (including on- and off-campus workshops, seminars, conferences, etc.) for faculty members: 0 B: Total number of FTE faculty: 109 C: Number of training hours dedicated to sustainability topics per FTE faculty member: 0.0%

K-11: Sustainability Research Expenditures

CSAF Definition	Total annual research dollars spent on sustainability-focused projects divided by the total annual research dollars, multiply by 100.																		
Calculations	The Business office on campus was able to quickly and effectively supply the following information. <table border="1"> <thead> <tr> <th colspan="3">Bishop's University Financing for Sustainable Research 2009-2010</th> </tr> <tr> <th>Last Name</th> <th>First Name</th> <th>Funding (\$)</th> </tr> </thead> <tbody> <tr> <td><i>Levac</i></td> <td><i>Elisabeth</i></td> <td><i>27 884</i></td> </tr> <tr> <td colspan="2"><i>Budapest, Hungary: 8th European Paleobotany - Palynology Conference, "Influence of Spring and Summer Weather on Pollen Season and Pollen Production in the City of Sherbrooke, Quebec", July 6-10, 2010</i></td> <td><i>1 084</i></td> </tr> <tr> <td colspan="2"><i>Multi-scale Climate and Environmental Change Cluster</i></td> <td><i>5 000</i></td> </tr> <tr> <td colspan="2"><i>Sources and Oceanic Paths of Large Meltwater Discharge Events and their Roles in Abrupt Holocene Climatic Events</i></td> <td><i>21 800</i></td> </tr> </tbody> </table>	Bishop's University Financing for Sustainable Research 2009-2010			Last Name	First Name	Funding (\$)	<i>Levac</i>	<i>Elisabeth</i>	<i>27 884</i>	<i>Budapest, Hungary: 8th European Paleobotany - Palynology Conference, "Influence of Spring and Summer Weather on Pollen Season and Pollen Production in the City of Sherbrooke, Quebec", July 6-10, 2010</i>		<i>1 084</i>	<i>Multi-scale Climate and Environmental Change Cluster</i>		<i>5 000</i>	<i>Sources and Oceanic Paths of Large Meltwater Discharge Events and their Roles in Abrupt Holocene Climatic Events</i>		<i>21 800</i>
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<i>Savage</i>	<i>Jade</i>	917
<i>San Jose, Costa Rica: 7th International Congress of Dipterology, "Griffith's Legacy: Current Status and Future Directions in Nearctic Anthomyiidae Systematics", August 7-13, 2010</i>		917
Total		\$ 28 801

A: Annual research dollars spent on sustainability-focused projects: \$28 801
 B: Total annual research dollars: \$781, 561
 C : % Total annual research dollars spent on sustainability-focused projects
 $[(a/b)*100] = 3.69 \%$

K-17: Courses with Sustainability Content

CSAF Definition	Total number of courses that have "substantial sustainability content," divided by total number of courses; multiply by 100																																																																					
Calculations	<p>A: Total number of courses that have "substantial sustainability content": 223 The criteria for determining if courses are considered to have "substantial sustainability content" were determined by the sustainable education committee. The criteria can be found in Appendix B.</p> <p>B: Total number of courses offered at Bishop's University: 1553</p> <table border="1"> <thead> <tr> <th>Division</th> <th>Total # Courses</th> <th>Courses with SD Content</th> </tr> </thead> <tbody> <tr><td>Business</td><td>92</td><td>20</td></tr> <tr><td>Education</td><td>101</td><td>13</td></tr> <tr><td>Arts Administration & General Humanity Courses</td><td>5</td><td>1</td></tr> <tr><td>Classics</td><td>57</td><td>4</td></tr> <tr><td>Drama</td><td>53</td><td>2</td></tr> <tr><td>English</td><td>100</td><td>5</td></tr> <tr><td>Etudes francaises et Quebécoise</td><td>49</td><td>3</td></tr> <tr><td>Fine Arts</td><td>64</td><td>2</td></tr> <tr><td>History</td><td>84</td><td>12</td></tr> <tr><td>Liberal Arts</td><td>14</td><td>0</td></tr> <tr><td>Modern Languages</td><td>2</td><td>0</td></tr> <tr><td>English Language Studies</td><td>17</td><td>0</td></tr> <tr><td>German Studies</td><td>33</td><td>1</td></tr> <tr><td>Hispanic Studies</td><td>31</td><td>0</td></tr> <tr><td>Italian Studies</td><td>22</td><td>0</td></tr> <tr><td>Japanese Studies</td><td>11</td><td>0</td></tr> <tr><td>Music</td><td>98</td><td>1</td></tr> <tr><td>Philosophy</td><td>43</td><td>3</td></tr> <tr><td>Religion</td><td>43</td><td>3</td></tr> <tr><td>Biochemistry</td><td>21</td><td>3</td></tr> <tr><td>Biology</td><td>80</td><td>31</td></tr> <tr><td>Chemistry</td><td>59</td><td>4</td></tr> </tbody> </table>	Division	Total # Courses	Courses with SD Content	Business	92	20	Education	101	13	Arts Administration & General Humanity Courses	5	1	Classics	57	4	Drama	53	2	English	100	5	Etudes francaises et Quebécoise	49	3	Fine Arts	64	2	History	84	12	Liberal Arts	14	0	Modern Languages	2	0	English Language Studies	17	0	German Studies	33	1	Hispanic Studies	31	0	Italian Studies	22	0	Japanese Studies	11	0	Music	98	1	Philosophy	43	3	Religion	43	3	Biochemistry	21	3	Biology	80	31	Chemistry	59	4
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Computer Science	64	1
Mathematics	57	1
Physics	71	2
Economics	44	3
Environmental Studies & geography	43	41
Political Studies	64	5
Psychology	62	28
Sociology	69	34
TOTAL	1553	223

C: % of courses which have "substantial sustainability content" $[(a/b)*100]$:
14.4%

APPENDIX A: CALCULATIONS

Orientation 4: Governance

G-1: University Government Policies

CSAF Definition	Total number of policies presents on campus from this list divided by total number of policies in this list; multiply by 100. Only policies of the university government should be included.
Calculations	<p>A. Total number of policies presents on campus from this list: 14 See the following website for all policies: http://www.ubishops.ca/administration-governance/university-policies/index.html</p> <p>✓ Energy Management (efficiency measures, greenhouse gas reduction, and use of perpetual renewable sources)</p> <p>Section 2.3 Bishop's University Environmental Policy : Energy Efficiency B.U. will endeavor, in conjunction with the Facilities Department, to minimize energy consumption, reduce emissions and reduce the consumption of fossil fuels and other non-renewable energy sources.</p> <p>Section 2.4 Transportation B.U. will endeavour, in conjunction with the Facilities Department, to minimise vehicular energy consumption and to reduce emissions and the consumption of fossil fuels.</p> <p>Section 4.3 Energy Efficiency</p> <p>4.3.1 Establishment of a baseline as a standard against which improvement in energy consumption can be measured.</p> <p>4.3.2 Undertaking projects to increase energy efficiency or decrease pollution wherever there are acceptable payback periods of the costs involved.</p> <p>4.3.3 Using an integrated approach to facilities management. An integrated approach implies that energy costs should be analysed by taking into account all energy types rather than examining individual systems or energy types in isolation.</p> <p>4.3.4 Exploring government initiatives to ensure participation in relevant programs in the areas of pollution reduction and energy efficiency.</p> <p>4.3.5 Incorporating energy efficiency and renewable energy technologies in all building projects.</p> <p>Section 4.4 Bishop's University Environmental Policy : Transportation</p> <p>4.4.1 Making bike racks available at academic and residence buildings.</p> <p>4.4.2 Taking emission levels into consideration in the purchase of vehicles.</p> <p>✓ Water Management (efficiency measures and reuse)</p> <p>Section 2.5 Bishop's University Environmental Policy : Water Consumption B.U. will endeavor, in conjunction with the Facilities Department, to minimize water consumption.</p> <p>Section 4.5 Bishop's University Environmental Policy : Water Consumption</p> <p>4.5.1 Installing water efficient models when replacing any water fixtures on campus.</p> <p>4.5.2 Undertaking projects to decrease water usage.</p>

APPENDIX A: CALCULATIONS

4.5.3 Using longevity and water efficiency as primary considerations when purchasing water fixtures

Clean Air (both in- and out-door)

✓ Health and Safety

A health and safety policy exists.

✓ Ethical and Environmentally Sound Purchasing

Section 2.7 Bishop's University Environmental Policy : Purchasing

B.U. will endeavor, in conjunction with the Vice-Principal Finance and Administration to minimize the ecological impact of the products and services purchased in support of campus operations.

Section 4.7 Bishop's University Environmental Policy : Purchasing

4.7.1 Minimizing the required use of paper by photocopiers and printers.

4.7.2 Favoring the purchasing of unbleached, recycled and post-consumer paper.

4.7.3 Having unbleached recycled paper in the Bookstore.

4.7.4 Taking the following factors into account in purchase of products:

a) reduced packaging;

b) environmental performance (*i.e.* energy saving);

c) reduced consumption;

d) construction (*i.e.* recycled materials rather than tropical hardwoods);

e) longevity.

4.7.5 Providing information to departments comparing the environmental performance of different products. (*i.e.* Fax machines that can use recycled paper, etc).

✓ Solid Waste Management (reduction, reuse and recycling measures)

Section 2.6 Bishop's University Environmental Policy : Waste Reduction: Solid, Organic and Hazardous Materials

B.U. will endeavor, in conjunction with the Facilities and other departments, through recycling, composting and other waste management projects, to minimize solid and organic waste production and to limit and monitor the use of hazardous materials on campus grounds, in cleaning and in laboratories.

Section 4.6 Bishop's University Environmental Policy : Waste Reduction: Solid, Organic and Hazardous Materials

4.6.1 Having an effective paper waste reduction program.

4.6.2 Limiting solid waste generated by the university.

4.6.3 Maintaining an effective recycling program (paper, glass, plastic, metals, computers and other materials) across campus.

4.6.4 Offering furniture for sale or donation prior to disposal.

4.6.5 Using yard waste as mulch on campus grounds.

4.6.6 Implementing a food composting program.

4.6.7 Using effective, environmentally friendly cleaning supplies when appropriate.

✓ Hazardous Waste Management (reduction, reuse and recycling measures)

Section 2.6 Bishop's University Environmental Policy : Waste Reduction: Solid, Organic and Hazardous Materials

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B.U. will endeavour, in conjunction with the Facilities and other departments, through recycling, composting and other waste management projects, to minimise solid and organic waste production and to limit and monitor the use of hazardous materials on campus grounds, in cleaning and in laboratories.

Section 4.6 Bishop's University Environmental Policy : Waste Reduction: Solid, Organic and Hazardous Materials

4.6.8 In accordance with Provincial and Federal regulations, monitoring the safe use and storage of hazardous and toxic materials on campus and carrying out their disposal.

✓ **Transportation Demand Management**

Section 4.4 Bishop's University Environmental Policy : Transportation

4.4.1 Making bike racks available at academic and residence buildings.

4.4.2 Taking emission levels into consideration in the purchase of vehicles.

☒ **Community Engagement in Campus Decision-making (both on- and off- campus communities)**

☒ **Ethical and Environmentally Sound Investment.**

✓ **Sustainability in Education (sustainability course content for all graduating students, strategies to meet this)**

Section 2.2 Bishop's University Environmental Policy : Curriculum

B.U. encourages faculty and Senate to consider, where appropriate, taking steps to incorporate environmental content throughout existing curriculum, increasing environment related course offerings and programs seeking more resources to dedicate to environmental research.

Section 4.2 Bishop's University Environmental Policy : Curriculum

4.2.1 Where appropriate, incorporating cases and examples derived from the Campus Environmental Audit Project or other on-campus environmental projects into course-work.

4.2.2 Where appropriate, using local community environmental resources, and integrating local and regional issues into course work.

4.2.3 Where appropriate, using speakers, presentations, debates and other such methods to educate students on environmental topics.

✓ **Sustainability in Research**

Section 2.2 Bishop's University Environmental Policy : Curriculum

B.U. encourages faculty and Senate to consider, where appropriate, taking steps to incorporate environmental content throughout existing curriculum, increasing environment related course offerings and programs seeking more resources to dedicate to *environmental research*.

- Bishop's Also has a research ethics policy

✓ **Equity (gender, people with disabilities, and ethnic)**

- Bishop's has a policy statement for services for students with special needs as well as an HIV/AIDS Policy

✓ **Wellness (fitness, safe work environment, spirituality, nutrition, alternative work arrangements)**

- Bishop's has a safety policy for staff and contractors, a lab health and safety policy and a non-smoking policy

☒ **Long-term Campus Land-use Planning (principles of smart growth, protection of**

APPENDIX A: CALCULATIONS

	<p>green space, design for efficiency, community engagement)</p> <p>✓ University Mission (broad commitment to sustainability)</p> <p>Section 2.1- Bishop's University Environmental Policy : Environmental Awareness</p> <p>B.U. will endeavor to enhance awareness of campus environmental projects and the activities of the Environment and Land Use Committee (ELU).</p> <p>Section 4.1 Bishop's University Environmental Policy : Environmental Awareness</p> <p>4.1.1 Maintaining a webpage (www.ubishops.ca/elu) containing the minutes and associated documentation of the Environment and Land Use Committee (ELU).</p> <p>4.1.2 Developing an annual campus-wide "Environmental Awareness Campaign", with the involvement of students, faculty and staff, aimed at raising awareness of campus environmental projects.</p> <p>✓ Strategic Plan (academic and administrative planning and positioning)</p> <p>Bishop's University Environmental Policy</p> <p><i>1.1 Mission</i></p> <p>As an institute of higher education BU has the responsibility, and commits itself by specific actions, to serve as a role model in the areas of environmental protection and waste management.</p> <p><i>1.3 Goal</i></p> <p>B.U seeks to minimise its impact on the environment through a program of continual improvement in environmental performance, achieved by implementing a feasible and comprehensive environmental policy with measurable and achievable targets.</p> <p><input checked="" type="checkbox"/> Preferential Purchase of Local Goods and Services</p> <p>✓ Conflict and Dispute Resolution processes (for both internal and external issues)</p> <p>Bishop's University has a conflict of interest policy and a policy on research integrity and conflict of interest in research</p> <p>B: Total number of policies in this list: 19</p> <p>C. % of policies in the list that are also found in Bishop's Universities policies [(a/b)*100]: 73.7%</p>
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G-7: University Financing of Sustainability

CSAF Definition	Total annual dollars spent on staffing and operations of sustainability focused programs and initiatives from the list in G-6, divided by the total annual university budget (including operations and research/teaching); multiply by 100
Calculations	<p>A: Total annual dollars spent on staffing and operations of sustainability focused programs and initiatives: \$159,589</p> <p>B: Total annual university budget (2010): \$46.6 million</p> <p>C: % University budget spent on staffing and operations of sustainability focused programs and initiatives [(a/b)*100]: 0.34%</p>

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Orientation 5: Economy & Wealth

EW-2: Student Debt Load

CSAF Definition	Average debt per FTE graduating student with a government or bank loan, or line of credit, subtracted from the national average debt load (of students with a debt)
Calculations	<p>This data was obtained from a survey sent to all Bishop's students. A total of 134 replied. The average debt load of graduates was calculated from the figures provided in response to the survey and has been considered representative for the purpose of this assessment.</p> <p>A. Average debt per FTE graduating student: \$20, 716</p> <p>B. National average debt load: \$37, 000 (From Canadian Federation of Students. 2009. Canada's Education Action Plan. Retrieved June 9th 2011 from http://www.cfs-fcee.ca/html/english/research/submissions/CFS-2009-Education-Action-Plan.pdf)</p> <p>C: Average debt of Bishop's graduates above the national average debt load: - \$ 16, 284.</p>

EW-7: Wage Gap

CSAF Definition	Wage gap between highest and lowest paid employees calculated by dividing highest annual salary by lowest annual salary
Calculations	<p>This information was provided by human resources as the difference between the two highest classes of pay used at the university and thus is a range. More specific values were unavailable due to privacy issues.</p> <p>A: Highest Salary: \$152 103</p> <p>B: Lowest Salary: \$26 246</p> <p>C: Wage gap between highest and lowest paid employees (a-b): \$125 857</p>

EW-15: Locally Purchased Goods and Services

CSAF Definition	<p>Total annual dollars spent on locally provided, harvested, produced and/or manufactured goods and services divided by the total annual dollars spent on goods and services; multiply by 100.</p> <p>"Local" means within a 200 km radius of the campus</p>
Calculations	<p>Information for this indicator was obtained by consulting Sodexo's Food and Beverage Manager.</p> <p>A. Annual dollars spent on locally provided, harvested, produced and/or manufactured goods and services: \$449 079</p> <p>B. Total annual dollars spent on goods and services: \$ 1 203 465</p> <p>C. % of annual dollars spent on goods and services that are on locally provided, harvested, produced and/or manufactured $[(a/b)*100]$: 37.3%</p>

EW-17: Ethically and Environmentally Sound Investments

APPENDIX A: CALCULATIONS

CSAF Definition	Total annual dollars invested by university and student administrations in ethical and environmentally responsible companies, divided by total annual invested dollars.																												
Calculations	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center; background-color: #d9d9d9;"><u>Investments by University as of June 30, 2010</u></th> </tr> <tr> <th style="text-align: left;"><i>Investment</i></th> <th style="text-align: right;"><i>Amount</i></th> </tr> </thead> <tbody> <tr> <td><i>Balanced Fund, McLean Budden (representing charitable annuity donation fund)</i></td> <td style="text-align: right;">799 509</td> </tr> <tr> <td><i>Money Market Fund, McLean Budden (representing supplemental employee retirement plan [SERP])</i></td> <td style="text-align: right;">5 616</td> </tr> <tr> <td><i>Cooperative de Solidarite Air Sherbrooke</i></td> <td style="text-align: right;">450</td> </tr> <tr> <td>iNovia Capital Inc.</td> <td style="text-align: right;">4 000</td> </tr> <tr> <td>MSBI Investment Fund</td> <td style="text-align: right;">131 947</td> </tr> <tr> <td><i>Sixtron Advanced Materials Ins</i></td> <td style="text-align: right;">200 000</td> </tr> <tr> <td>Annual invested dollars</td> <td style="text-align: right;">1 141 522</td> </tr> <tr> <td><i>Annual invested dollars in ethically & environmentally sound companies</i></td> <td style="text-align: right;"><i>1 005 575</i></td> </tr> </tbody> </table> <p>A: Annual dollars invested by university and student administrations that are invested in ethical and environmentally responsible companies: \$ 1 005 575 B: Annual dollars invested by university and student administrations: \$1 141 522 C: Fraction of the total annual dollars invested by university and student administrations that are invested in ethical and environmentally responsible companies (a/b): 0.88</p> <p><u>The following calculations are concerning the Bishop's University Foundations funds. This foundation is a separate entity from the university. It is funded by donations from Alumni and external sources and is a charitable foundation.</u></p> <p>D: Annual dollars invested by the university foundation that are invested in ethical and environmentally responsible companies: \$21,878,462</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center; background-color: #4b4b9b; color: white;"><u>Investments by University Foundation as of June 30, 2010</u></th> </tr> </thead> <tbody> <tr> <td>Goodwood INC.</td> <td style="text-align: right;">\$3,577,719</td> </tr> <tr> <td><i>Burgundy Asset Management</i></td> <td style="text-align: right;"><i>\$21,878,462</i></td> </tr> <tr> <td><u><i>Annual invested dollars in ethically & environmentally sound companies</i></u></td> <td style="text-align: right;"><u><i>\$21,878,462</i></u></td> </tr> </tbody> </table> <p>E: Annual dollars invested by the university foundation: \$25 699 257 F: Fraction of the total annual dollars invested by the university foundation that are invested in ethical and environmentally responsible companies (d/e): 0.85</p>	<u>Investments by University as of June 30, 2010</u>		<i>Investment</i>	<i>Amount</i>	<i>Balanced Fund, McLean Budden (representing charitable annuity donation fund)</i>	799 509	<i>Money Market Fund, McLean Budden (representing supplemental employee retirement plan [SERP])</i>	5 616	<i>Cooperative de Solidarite Air Sherbrooke</i>	450	iNovia Capital Inc.	4 000	MSBI Investment Fund	131 947	<i>Sixtron Advanced Materials Ins</i>	200 000	Annual invested dollars	1 141 522	<i>Annual invested dollars in ethically & environmentally sound companies</i>	<i>1 005 575</i>	<u>Investments by University Foundation as of June 30, 2010</u>		Goodwood INC.	\$3,577,719	<i>Burgundy Asset Management</i>	<i>\$21,878,462</i>	<u><i>Annual invested dollars in ethically & environmentally sound companies</i></u>	<u><i>\$21,878,462</i></u>
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<i>Balanced Fund, McLean Budden (representing charitable annuity donation fund)</i>	799 509																												
<i>Money Market Fund, McLean Budden (representing supplemental employee retirement plan [SERP])</i>	5 616																												
<i>Cooperative de Solidarite Air Sherbrooke</i>	450																												
iNovia Capital Inc.	4 000																												
MSBI Investment Fund	131 947																												
<i>Sixtron Advanced Materials Ins</i>	200 000																												
Annual invested dollars	1 141 522																												
<i>Annual invested dollars in ethically & environmentally sound companies</i>	<i>1 005 575</i>																												
<u>Investments by University Foundation as of June 30, 2010</u>																													
Goodwood INC.	\$3,577,719																												
<i>Burgundy Asset Management</i>	<i>\$21,878,462</i>																												
<u><i>Annual invested dollars in ethically & environmentally sound companies</i></u>	<u><i>\$21,878,462</i></u>																												

APPENDIX A: CALCULATIONS

Orientation 6: Water

W-1: Potable Water Consumed

CSAF Definition	Total annual volume of potable water consumed by the campus for all uses (in litres), divided by the total number of CCM's
Calculations	No Data: Bishops does not have any water meters to determine the campuses use of water, potable or not.

W-7: Efficiency of Fixtures

CSAF Definition	Total number of new water fixtures installed annually that are of highest possible water efficiency rating for that year, divided by the total number of new fixtures installed in that year; multiply by 100
Calculations	Data was obtained from an interview with Steve Rowe, Buildings and Grounds Foreman. A: Water efficient fixtures installed this year: 0 B: New water fixtures installed this year: < 10 C: % of water efficient fixtures installed [(a/b)*100]: 0.0%

W-9: Wastewater Produced

CSAF Definition	Total volume of wastewater (including grey- and black water) produced on campus annually in litres, divided by total number of CCM's
Calculations	No Data: Bishops does not have any water meters to determine the campuses use of water or production of wastewater

APPENDIX A: CALCULATIONS

Orientation 7: Material

M-1: LEED Certified Base Buildings

CSAF Definition	Total number of base buildings completed in the previous three years that have been certified to LEED silver, gold or platinum standard, divided by the total number of buildings completed in the previous three years; multiply by 100
Calculations	A: # of LEED certified buildings completed in last 3 years: 0 B: # of buildings completed in last 3 years: 0 C: % of buildings completed in last 3 years that are LEED certified [(a/b)*100]: 0.0%

M-3: Paper Consumption

CSAF Definition	Total pieces of paper (of all types) purchased by all departments in the college each year, divided by the total number of CCM's.																																																												
Calculations	<p><u>Bishop's Paper from 2010 calendar year</u></p> <table border="1"> <thead> <tr> <th></th> <th colspan="2">Sheets</th> </tr> </thead> <tbody> <tr> <td rowspan="3">HUSKY COPY Recycled</td> <td>8.5 x 11</td> <td>3600000</td> </tr> <tr> <td>8.5 x 14</td> <td>100000</td> </tr> <tr> <td>11 x 17</td> <td>25000</td> </tr> <tr> <td rowspan="3">Domtar Bond Colored Paper</td> <td>8.5 x 11</td> <td>195000</td> </tr> <tr> <td>8.5 x 14</td> <td>25000</td> </tr> <tr> <td>11 x 17</td> <td>8000</td> </tr> <tr> <td>Domtar Vellum Bristol Cover 67lb.</td> <td>8.5 x 11</td> <td>42000</td> </tr> <tr> <td>Domtar Cougar Digital Choice 65lb.</td> <td>8.5 x 11</td> <td>5000</td> </tr> <tr> <td>Boisé Aspen</td> <td>8.5 x 11</td> <td>110000</td> </tr> <tr> <td>Domtar Hots Text 60lb.</td> <td>8.5 x 11</td> <td>5000</td> </tr> <tr> <td rowspan="2">First Choice 28lbs</td> <td>8.5 x 11</td> <td>40000</td> </tr> <tr> <td>11 x 17</td> <td>6000</td> </tr> <tr> <td rowspan="3">Sterling</td> <td>8.5 x 11</td> <td>4000</td> </tr> <tr> <td>11 x 17</td> <td>3000</td> </tr> <tr> <td>12 x 18</td> <td>3000</td> </tr> <tr> <td colspan="2" style="text-align: right;">Total</td> <td>4171000</td> </tr> </tbody> </table> <p>A. Number of sheets of paper purchased in 2010 calendar year: 4 171 000 B: Weight of sheets of paper purchased in 2010 calendar year (0.004 lbs *a): 16 684 lbs or 7583.6 kg</p> <table border="1"> <thead> <tr> <th>Type of Paper</th> <th>Cases</th> <th>Weight</th> <th>Total Weight</th> </tr> </thead> <tbody> <tr> <td>Hand Paper Towels</td> <td>225</td> <td>33.2 lbs</td> <td>7470 lbs</td> </tr> <tr> <td>Bathroom Tissue (1)</td> <td>332</td> <td>31.2 lbs</td> <td>10358.4 lbs</td> </tr> <tr> <td>Bathroom Tissue (2)</td> <td>26</td> <td>22.5 lbs</td> <td>585 lbs</td> </tr> </tbody> </table>		Sheets		HUSKY COPY Recycled	8.5 x 11	3600000	8.5 x 14	100000	11 x 17	25000	Domtar Bond Colored Paper	8.5 x 11	195000	8.5 x 14	25000	11 x 17	8000	Domtar Vellum Bristol Cover 67lb.	8.5 x 11	42000	Domtar Cougar Digital Choice 65lb.	8.5 x 11	5000	Boisé Aspen	8.5 x 11	110000	Domtar Hots Text 60lb.	8.5 x 11	5000	First Choice 28lbs	8.5 x 11	40000	11 x 17	6000	Sterling	8.5 x 11	4000	11 x 17	3000	12 x 18	3000	Total		4171000	Type of Paper	Cases	Weight	Total Weight	Hand Paper Towels	225	33.2 lbs	7470 lbs	Bathroom Tissue (1)	332	31.2 lbs	10358.4 lbs	Bathroom Tissue (2)	26	22.5 lbs	585 lbs
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APPENDIX A: CALCULATIONS

<p>TOTAL ---- ----- 18413.4 lbs</p> <p>C: Weight of sanitary paper purchased: 18 413.4 lbs or 8369.73 kg</p> <p>D: Total weight of paper (b+c): 35 097.4 lbs or 15 953.4 kg</p> <p>E. Total CCMs: 2458</p> <p>F. Number of sheets per CCM in the 2010 calendar year (a/e): 1696.9 sheets/CCM</p> <p>G: Weight of paper purchased per CCM (d/e): 14.28 lbs/CCM or 6.49 kg/CCM</p> <p>H: EEETP: 2086</p> <p>I: Number of sheets per EEETP in the 2010 calendar year (a/h): 1999.5 sheets/EEETP</p> <p>J. Weight of paper purchased per EEETP (d/h): 16.83 lbs/EEETP or 7.65 kg/EEETP</p>

M-4: Recycled Content of Paper

CSAF Definition	Total percent post-consumer content of all tree-based paper used on campus each year. Postconsumer recycled paper counts as a factor of one, whereas post-industrial recycled paper counts as a factor of 0.5.				
Calculations	The % of post-consumer material in the paper was multiplied by the number of such sheets to give the number of recycled sheets.				
		Sheets		Recycled Sheets	
HUSKY COPY Recycled	8.5 x 11	3600000	30% post-consumer, SFI Fiber Sourcing Certified	1080000	
	8.5 x 14	100000		30000	
	11 x 17	25000		7500	
Domtar Bond Colored Paper	8.5 x 11	195000	30% post-consumer, SFI Fiber Sourcing Certified	58500	
	8.5 x 14	25000		7500	
	11 x 17	8000		2400	
Domtar Vellum Bristol Cover	8.5 x 11	42000	10% post-consumer	4200	
Domtar Cougar Digital Choice	8.5 x 11	5000	10% post-consumer, FSC Certified	500	
Boisé Aspen	8.5 x 11	110000	100% post-consumer fiber, FSC Chain of Custody certified	110000	
Domtar Hots Text	8.5 x 11	5000	0% post-consumer, FSC-certified	0	
First Choice 28lbs	8.5 x 11	40000	FSC certified, SFI Fiber Sourcing Certified	0	
	11 x 17	6000		0	
Sterling	8.5 x 11	4000	Recycled 10% of Content, FSC Certified	400	
	11 x 17	3000		300	
	12 x 18	3000		300	
		4171000			1301600

APPENDIX A: CALCULATIONS

A: # of Recycled sheets of paper: 1 301 600
B: Weight of Recycled sheets of paper (0.004*a): 5206.4 lbs
C: Weight of Recycled sanitation paper products: 7583.6 kg (all purchases are 100% recycled – see indicator M-3 (C))
D: Total weight of recycled paper products (b+c): 12 790.0 kg
E: Total weight of all paper products: 15 953.4 kg
F: % of paper products which are recycled [(d/e)*100]: 80.2 %

M-7: Local Food Production

CSAF Definition	Total amount of food (in dollars) that is locally produced, divided by total annual food budget; multiply by 100. “Local” means within a 200 kilometre radius of the campus.
Calculations	Information for this indicator was obtained by consulting Sodexo’s Food and Beverage Manager. A: Annual amount of food locally produced: \$366 054 B: Total annual food budget: \$1 083 000 C: % of annual food budget spent on locally produced food [(a/b)*100]: 33.8%

M-9: Solid Waste and Recyclables Produced

CSAF Definition	Total weight of solid waste and recycling produced (in kilograms) annually, divided by the total number of CCMs.
Calculations	Through interviewing Mr. Jean Vallaincourt, the custodial supervisor, the following values were obtained. A: Total weight of solid waste per week in semester : ~4 000 Kg B: Total weight of solid waste per week outside of semester: ~2 000 Kg C: Total annual weight of solid waste (a*32 + b*20): ~168 000 Kg D: Total weight of recycled products per week: ~ 2250 Kg F: Total annual weight of recycled products (d*52): ~117 000 Kg G: Total annual weight of solid waste and recycling (c + f): 285 000 Kg H: Total number of CCMs: 2458 I: Total annual weight of solid waste and recycling per CCM (g/h): 115.95 kg/CCM

M-11: Recyclables Being Landfilled

CSAF Definition	Total amount of recyclables (including organic wastes) by weight (in kilograms) contained in the waste destined for landfill or incineration, divided by the total weight (in kilograms) of all landfill waste; multiply by 100.
Calculations	No official data is available as no garbage audit has ever been performed at Bishops University, and thus the amount of recyclables and/or compostable

APPENDIX A: CALCULATIONS

included in the waste destined for landfill or incineration is unknown. However, Mr. Jean Vallaincourt estimates 33% of all waste destined for the landfill or incineration is recyclable.

APPENDIX A: CALCULATIONS

Orientation 8: Air

A-7: Chemical Free Cleaning

CSAF Definition	Total square metres of indoor space always cleaned using a chemical free system, divided by the total interior square metres; multiply by 100
Calculations	<p>An interview with the custodial supervisor, Jean Vallaincourt, provided the following information:</p> <p>90% of the products used to clean Bishops interior spaces are chemical free and of the enviro-choice logo. Such products include floor finish, sealer, wax, etc... The product making up the remaining 10% is a soft acid which must be used to soften the hard water available to the custodians who clean Bishops interior space. A neutral soap, not certified organic, is also minimally used.</p> <p>Once the universities water supply is attached with that of the town of Sherbrooke (to be done before the 2013 Canada games), the soft acid will be replaced with an organic equivalent. However, as this is not the current case and a soft acid is currently used, no indoor space is cleaned using a completely chemical free system.</p> <p>% of indoor space always cleaned using a chemical free system: 0%</p>

APPENDIX A: CALCULATIONS

Orientation 9: Energy

E-1: Renewable Energy: Buildings

CSAF Definition	<p>Total GJ of energy consumed annually by buildings for heating, ventilation, air conditioning, refrigeration and electrical systems from renewable sources, divided by the total GJ of energy consumed annually for the uses listed in the indicator; multiply by 100.</p> <p>Building energy should include energy used for exterior lighting and signage. “Renewable sources” means clean, non-nuclear, and perpetual renewable energy. Large-scale hydroelectricity is not considered renewable, although small-scale or micro-hydro is.</p>
Calculations	<p>A: Total GJ of energy from renewable sources consumed annually by buildings for heating, ventilation, air conditioning, refrigeration and electrical systems: 1790.3 GJ/yr</p> <ol style="list-style-type: none"> 1. Solar Panel on Hamilton: 300 megajoules annually or 0.3 GJ/yr <i>The following data is copied from the 2008 audit as the savings should not have changed over the last three years</i> 2. Patterson Solar wall: 690 GJ/ yr 2300 sq/ft * savings of 0.3 GJ/yr/sqft <i>Please note that this wall is not made of PV cells, but rather is located 8 inches off of the interior wall and is full of perforations. These perforations allow air to enter which is preheated by the solar radiation trapped in the wall. This heated air is then used by the building to reduce their energy use.</i> 3. Thermal Wheel: 1100 GJ/yr <p>B: Total GJ of energy consumed annually for the uses above: 93 500 GJ 60 000 GJ is obtained from natural gas consumption while 33 500 GJ is obtained from large scale hydroelectricity.</p> <p>C: % of GJ of energy that comes from renewable sources [(a/b)*100]: 1.91%</p>

E-4: Greenhouse Gas Emissions: Buildings

CSAF Definition	<p>Total energy (of all types) consumed (in GJ) each year for heating, cooling, ventilation, and electrical systems, converted into GHG equivalent (tons), and divided by total square metres of interior built space. <i>And also GHG equivalents per EEETP.</i></p> <p>Note: energy used for outdoor uses (lighting, signage, etc.) should be included in the energy use calculation, but will still be assessed relative to square metres of interior space.</p>
Calculations	<p>A: Total GJ of energy from natural gas: ~ 60 000 GJ</p> <p>B: Total m³ of natural gas: 1 583 531 m³</p> <p>C: Total GHG equivalent (tons) from natural gas (b*1.903 kg CO2 eq.): 3</p>

APPENDIX A: CALCULATIONS

013 459.5 kg CO₂ eq.

D: Total GJ of energy from hydroelectricity: ~ 33 500 GJ

E: Total GHG equivalent (tons) from hydroelectricity ($a \cdot 0.0 \text{ kg CO}_2$): 0.0 Kg CO₂

F: Total GHG equivalent (tons) (c + e): 3 013 459.5 kg CO₂ eq

G: Total interior built space: 72 513.37 m²

Building	Area
Library	5651.32
Theater	5731.58
Dewhurst & Security	1813.53
Golf Club House	446.79
Johnson/Nicolls/Hamilton	12086.61
McGreer	3999.52
Morris	455.49
Chaufferie	722.38
Price Sports Complex	9586.24
MacKinnon Dr 5	300.7
Scott Arena	3166.53
Molson Fine Arts	1401.99
Workshops	563.35
Abbot	2396.65
Kuehner	2398.59
McKinnon	3721.96
Munster	2564.11
Norton-Pollack	3948.28
Divinity	819.36
Art gallery	782.24
Paterson	1635
Knowlton	451.6
Harrold Drive No 5	448
Harrold Drive No 4 (Courmier Center)	385.3
Buildings and Grounds	139.37
Warehouses (1,2,3,3a,4)	640.26
Theater-teaching (hangar)	423.5
Stadium	859.95
SUB	4973.17
TOTAL INTERIOR BUILDING AREA	72513.37

H: GHG equivalents per square meter of interior space (f/g): 41.56 kg CO₂ eq/m²

I: EEETP: 2086

APPENDIX A: CALCULATIONS

J: GHG equivalents per EEETP (f/i): 1444.6 kg CO2 eq/EEETP

E-5: Greenhouse Gas Emissions: Commuting Transport

CSAF Definition	Total energy (of all types) consumed in GJ each year for commuting transportation, converted into GHG equivalent (tons), and divided by total number of CCMs in that year.
Calculations	An attempt to calculate the energy used for commuting transport was used the results of a survey sent to all CCMs. However, an inadequate number of respondents and the variability of answers made this indicator impossible to assess.

E-8: Reduction in Energy Consumption

CSAF Definition	Total change in energy consumption (of all types) in GJ for building, commuting and fleet/grounds vehicle uses in current year over previous year.
Calculations	The following information is obtained from data compiled by Ameresco, and excludes energy used for off campus housing. A: Energy consumption in 2008: 95 554 GJ B: Energy consumption in 2010: 84 487 GJ C: Change in energy consumption over the 2008 year: -11 067 GJ

APPENDIX A: CALCULATIONS

Orientation 10: Land

L-1: Managed Green Spaces

CSAF Definition	Total hectares of managed green spaces, divided by the total on-campus green space (both managed and natural, including everything that is not built or that is permeable); multiply by 100. Note: the percent of total on-campus green spaces that is 'natural' can also be found here by subtracting the result of this indicator from 100.								
Calculations	<p>This information is calculated from orthophotos of the campus.</p> <p>A: Total hectares of managed green space: 102.596 ha</p> <table border="1" style="margin-left: 40px;"> <thead> <tr> <th><i>Type & Region</i></th> <th><i>Area</i></th> </tr> </thead> <tbody> <tr> <td>Managed Green Space On-Campus (including sports fields and golf course)</td> <td>102.596 ha</td> </tr> <tr> <td>Natural Green Space On-Campus</td> <td>62.496 ha</td> </tr> <tr> <td><u>TOTAL</u></td> <td>165.092 ha</td> </tr> </tbody> </table> <p>B: Total on campus green space: 165.092 ha C: % of campus green space that is managed [(a/b)*100]: 62.15 % D: % of campus green space that is natural [a-c]: 37.85%</p>	<i>Type & Region</i>	<i>Area</i>	Managed Green Space On-Campus (including sports fields and golf course)	102.596 ha	Natural Green Space On-Campus	62.496 ha	<u>TOTAL</u>	165.092 ha
<i>Type & Region</i>	<i>Area</i>								
Managed Green Space On-Campus (including sports fields and golf course)	102.596 ha								
Natural Green Space On-Campus	62.496 ha								
<u>TOTAL</u>	165.092 ha								

L-3: Pesticides

CSAF core definition	Total volume of solid and liquid pesticides (including both plant and animal poisons of all types) used annually (in liters), divided by the total hectares of managed green spaces.
Calculations	<p>A: Total volume of solid and liquid pesticides used annually: ~ 102.73 Litres For consistency between 2008 and current audit, one kg of pesticide is equal to 1 Litre of pesticide</p> <ul style="list-style-type: none"> ▪ 0.5 L of round-up used for sports fields ▪ Less than 40 L of biochemicals used for golf course ▪ 50 L of Safer's insecticide soap(organic) ▪ 1.33 L Appât gourmet acide borique ▪ 900 grams Tim Bor Boric acid ▪ 10 kg Niban Granulaire(organic) <p>B: Total hectares of managed green space : 102.596 hectares C: Annual volume of solid and liquid pesticides used per hectare of managed green space [a/b]: 1.001 L/hectare</p>

APPENDIX A: CALCULATIONS

CREPUQ Indicators

A.2: Accessibility to Green Space

Definition	<p>A.2.1: CAMPUS: The number of square meters of greenspace on campus accessible to the ‘MCU’, divided by the total number of square meters of the campus.</p> <p>A.2.2: RADIUS of 1 km: The number of square meters of green space beyond the immediate campus, to a radius of 1 km (estimated).</p> <p>A.2.3: OFF CAMPUS: The number of square meters of greenspace belonging to the university (owned or leased), off campus.</p>
Calculations	<p>A.2.1: <i>The following information is obtained from orthophotos of campus.</i></p> <p style="padding-left: 40px;">A: Number of square meters of greenspace on campus: 624 960 m²</p> <p style="padding-left: 40px;">B: Total number of square meters of the campus: 1 931 465.48 m²</p> <p style="padding-left: 40px;">C: % of the campus that is covered by greenspace (a/b): 32.4%</p> <p>A.2.2: Square meters of greenspace within 1 km of campus: 1 915 640 m²</p> <p>A.2.3: Square meters of greenspace belonging to the university, off campus: 645 449.2 m²</p> <p>This indicator is hard to access as the definition of campus used for the 2011 audit may have been broader than the one used for the 2008 audit. All university land has been considered campus area for the 2011 audit, while the 2008 audit only considered the immediate campus. No variation in this value has occurred between 2008 and 2011 and thus the values from 2008 will be used for this indicator and will be considered identical.</p>

A.4: Health and Safety in the Workplace Training

Definition	A.4: The number of participants (staff and students) who have been involved in health and safety training divided by the EEETP, multiplied by 100.												
Calculations	<p>The results of this indicator are based on data gathered from lab technicians, the custodial supervisor, the buildings and grounds foreman, the human resources officer, the head of the physics department, the physiotherapy department and the director of residence and conference services.</p> <p>A: Number of participants (staff and students) who have been involved in health and safety training:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><i># of Individuals</i></th> <th style="text-align: left;"><i>Type of Training</i></th> </tr> </thead> <tbody> <tr> <td>27</td> <td>Whimis</td> </tr> <tr> <td>1</td> <td>Safety training for observatory</td> </tr> <tr> <td>5</td> <td>First Aid & CPR</td> </tr> <tr> <td>4</td> <td>1st Responder Training</td> </tr> <tr> <td>104</td> <td>General Laboratory Safety (Chem)</td> </tr> </tbody> </table>	<i># of Individuals</i>	<i>Type of Training</i>	27	Whimis	1	Safety training for observatory	5	First Aid & CPR	4	1 st Responder Training	104	General Laboratory Safety (Chem)
<i># of Individuals</i>	<i>Type of Training</i>												
27	Whimis												
1	Safety training for observatory												
5	First Aid & CPR												
4	1 st Responder Training												
104	General Laboratory Safety (Chem)												

APPENDIX A: CALCULATIONS

50 students	General Laboratory Safety (Sculpture)
~60	General Laboratory Safety (Bio)
17	Animal Care Training
TOTAL = 268	-----

B: EEETP: 2086
 C: % of participant's who have been involved in health and safety training per EEETP (a/b*100): 12.85%

B.1: Accessibility to Alternative Transportation for Free or at Reasonable Price

Definition	B.1: The total number of MCU's who use alternative transport to get to the university divided by the total MCU's x 100.
Calculations	Information is obtained from the Bishop's University Security Department. A: Total number of MCU's who use their own vehicle to get to campus: 1091 <i>Students: 641</i> <i>Employees: 450</i> <i>Total: 1091</i> B: Total MCU's: 2458 C: MCU's who do not use their own vehicle to get to campus (b-a): 1367 D: Percent of MCU's who use alternative transport to get to the university (c/b*100): 55.6%

D.2: Sustainable Development or Environmental Action Plans

Definition	D.2.1: The university possesses a sustainable development or Environmental Action Plan. D.2.2: The number of elements (out of 19) which are included in this plan.
Calculations	D.2.1: The university possesses a sustainable development or Environmental action plan: Yes D.2.2: Number of elements which are included in this plan: 15/19 ✓ 1. Gestion de l'énergie (mesures d'efficience, réduction des gaz à effet de serre, utilisation de sources renouvelables à perpétuité) Section 3.4 : Facilities <ul style="list-style-type: none"> • Review energy systems to ensure lower environmental impact, notably reducing emissions. • Reduce energy consumption • Increase use of renewable energy systems • Improve overall fuel efficiency of University vehicles and review purchasing policies to ensure fuel efficient vehicles are favoured ✓ 2. Gestion de l'eau (mesures d'efficience et de réutilisation) Section 3.4 : Facilities <ul style="list-style-type: none"> • Install water meters and monitor University's water consumption.

APPENDIX A: CALCULATIONS

- ✓ 3. Air pur (intérieur comme extérieur)
Section 3.4 : Facilities
 - Review purchasing policies to ensure eco-friendly cleaning products are favoured.
 - Increase awareness of interior air quality and improve maintenance of HVAC systems.
 - Review processes regarding stewardship of on-campus trees
 - Examine possibility of a carbon sequestration and forest stewardship project on campus lands.
 - Review energy systems to ensure lower environmental impact, notably reducing emissions
- ✓ 4. Santé et sécurité
Section 3.3 : Finance and Operations
 - Encourage greater distribution of nutritional information at on-campus food sources.
 - Obtain information on green space surrounding the campus
 - Invest resources in upgrading recreational and sports facilities, including the Price Sports Complex
 - Invest resources in Old Lennoxville golf course and other exterior recreation areas.
- ✓ 5. Achats éthiques et écologiquement rationnels
Section 3.3 : Finance and Operations
 - Ensure that sustainable development becomes a required element of all budgetary processes of the University
 - Review purchasing policies to purchase more recycled paper, ideally paper which is 100% recycled.
 - Review purchasing policies to ensure that low-impact pesticides are favoured
 - Fund more and seek more funding for sustainable development research
 - Review purchasing policies to ensure eco-friendly cleaning products are favoured.
- ✓ 6. Gestion des déchets solides (mesures de réduction, de réutilisation et de recyclage)
Section 3.3 : Finance and Operations
 - Measure and record recycling, composting and garbage volumes at University.
- ☒ 7. Gestion des déchets dangereux (mesures de réduction, de réutilisation et de recyclage)
- ✓ 8. Gestion de la demande en transport
Section 3.1: Administration and University Policy
 - Examine on-campus initiatives and policies to encourage pedestrian, bicycle, public transportation and car pooling and to discourage use of cars on campus.
- ✓ 9. Engagement de la communauté au processus décisionnel du campus (communautés sur et hors campus)

APPENDIX A: CALCULATIONS

Section 3.1: Administration and University Policy

- Prepare and implement a Sustainable Development Action Plan based on the audit results.
- Ensure regular review of the Sustainable Development Policy.
- Ensure regular review and updating of Sustainable Development Action Plan.

10. Investissements éthiques et écologiquement rationnels

- ✓ 11. Éducation pour la durabilité (cours à contenu en durabilité pour tous les diplômés, stratégies à cet effet)

Section 3.2 : Academics

- Increase sustainable development content in curriculum.

✓ 12. Recherche pour la durabilité

Section 3.2 : Academics

- Fund more and seek more funding for sustainable development research.

✓ 13. Équité (genre, handicaps, ethniques)

- ✓ 14. Bien-être (forme physique, milieu de travail sécuritaire, spiritualité, nutrition, régime de travail optionnel)

Section 3.5 : Human Resources

- Organize training for staff on sustainable development
- Provide training opportunities to staff and students on health & safety.

Section 3.4: Facilities

- Obtain information on green space surrounding the campus.

Section 3.3: Finance and Operations

- Invest resources in Old Lennoxville golf course and other exterior recreation areas.
- Encourage greater distribution of nutritional information at on-campus food sources.
- Invest resources in upgrading recreational and sports facilities, including the Price Sports Complex.

- ✓ 15. Planification à long terme de l'aménagement du terrain du campus (principes de croissance intelligente, protection des espaces verts, conception pour l'efficacité, engagement de la communauté)

Section 3.1 : Administration and University Policy

- Ensure campus master plan takes into account sustainable development imperatives.

- ✓ 16. Mission de l'Université (engagement général envers la durabilité)

Section 3.1 : Administration and University Policy

- Prepare and implement a Sustainable Development Action Plan based on the audit results.
- Revise current Environmental Policy to create a Sustainable Development Policy for the University.
- Ensure campus master plan takes into account sustainable development imperatives.

APPENDIX A: CALCULATIONS

	<ul style="list-style-type: none"> • Ensure regular review and updating of Sustainable Development Action Plan. • Ensure regular review of the Sustainable Development Policy. <p>✓ 17. Plan stratégique à long terme (planification et positionnement académique et administratif)</p> <p style="padding-left: 20px;">Section 3.5 : Human resources</p> <ul style="list-style-type: none"> • Provide training opportunities to staff and students on health & safety. • Organize training for staff on sustainable development • Create a position of Sustainable Development Officer. <p>☒ 18. Privilège accordé à l'achat de biens et services locaux</p> <p>☒ 19. Méthode de résolution de conflits et de différends (pour problèmes internes et externes)</p>
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D.3: University Employees Responsible for Sustainable Development or Environmental Initiatives

Definition	D.3: The total number of employees responsible for the implementation of sustainable development or environmental initiatives divided by the EEETP.
Calculations	<p>A: Number of Employees responsible for the implementation of sustainable development or environmental initiatives: 16</p> <ol style="list-style-type: none"> 1. Principal: Micheal Goldbloom 2. VP Finance and Administration: Helene St-Armand 3. Director of Finance: Isabelle Goyette 4. Director of Residence and Conference Services: Deborah Langford 5. Professor: Keith Baxter 6. Professor: Ron Yeates 7. Director of Buildings & Grounds: Michel Caron 8. Buildings & Grounds Foreman - Steven Rowe 9. Buildings & Grounds Administrative Assistant - Lynn Hyde 10. Project Manager: Paule Corriveau, arch. 11. Project Technician: Marc Tardif, tech. 12. Carpenter: Lance Howie 13. Director of Custodial Services: Jean Vaillancourt 14. Custodians: 17 15. SDSI Intern 16. SRC environmental officer <p>B: EEETP: 2086</p> <p>C: Fraction of Employees that are responsible for the implementation of sustainable development or environmental initiatives per EEETP: 0.0077</p>

E.1: University Financial Aid for Students

Definition	E.1: The total internal budget reserved for student aid, divided by the EEETP.
Calculations	<p>A: Internal budget reserved for student aid: \$962,928</p> <p style="text-align: center;"><i>This includes money transferred from the Bishop's University foundation to the university for student aid.</i></p> <p>B: EEETP: 2086</p> <p>C: Total internal budget for student aid per EEETP: \$461.61</p>

APPENDIX A: CALCULATIONS

H.1: Live Indoor Plants

Definition	H.1: Total number of live indoor plants, without the blooming period, divided by the total indoor space, in meters squared
Calculations	A: Total number of live indoor plants: 97 B: Total meters of indoor space: 72 513.37 m ² C: Number of indoor plants per square meter of indoor space (a/b): 0.0013

H.3: Number of Trees on Campus

Definition	H.3: Total number of live trees on campus (including natural and manicured areas), divided by the total surface area of the campus (in square meters).												
Calculations	<p><i>It should be noted that the number of live trees on the natural areas of campus was not calculated due to the extensiveness of the forests. Therefore this indicator merely assesses the number of trees on manicured areas of the immediate campus.</i></p> <p>A: Number of live trees on campus: 791 on immediate campus B: Total surface area of the immediate campus: 722 731.3 m²</p> <table border="1"> <thead> <tr> <th>#</th> <th>Lot Number</th> <th>Area</th> </tr> </thead> <tbody> <tr> <td>7</td> <td>2 446 789</td> <td>720 683.00 m²</td> </tr> <tr> <td>14</td> <td>2 447 357</td> <td>2 048.30 m²</td> </tr> <tr> <td colspan="2">TOTAL</td> <td>722 731.3 m²</td> </tr> </tbody> </table> <p>C: Number of live trees per square meter of campus area: 0.00109</p>	#	Lot Number	Area	7	2 446 789	720 683.00 m ²	14	2 447 357	2 048.30 m ²	TOTAL		722 731.3 m²
#	Lot Number	Area											
7	2 446 789	720 683.00 m ²											
14	2 447 357	2 048.30 m ²											
TOTAL		722 731.3 m²											

I.1: Use of Energy for Buildings of All Types

Definition	I.1: Total quantity of energy consumed (in Gigajoules) each year, divided by the total indoor space in meters squared. Taking consideration of the areas which consume greater energy. Calculate the ratio by dividing by the EEETP.																		
Calculations	<p>A: Quantity of energy consumed each year: 93 500 GJ 60 000 GJ is obtained from natural gas consumption while 33 500 GJ is obtained from Large scale hydroelectricity.</p> <p>B: Total indoor space: 72 513.37 m²</p> <table border="1"> <thead> <tr> <th>Building</th> <th>Area</th> </tr> </thead> <tbody> <tr> <td>Library</td> <td>5651.32</td> </tr> <tr> <td>Theater</td> <td>5731.58</td> </tr> <tr> <td>Dewhurst & Security</td> <td>1813.53</td> </tr> <tr> <td>Golf Club House</td> <td>446.79</td> </tr> <tr> <td>Johnson/Nicolls/Hamilton</td> <td>12086.61</td> </tr> <tr> <td>McGreer</td> <td>3999.52</td> </tr> <tr> <td>Morris</td> <td>455.49</td> </tr> <tr> <td>Chaufferie</td> <td>722.38</td> </tr> </tbody> </table>	Building	Area	Library	5651.32	Theater	5731.58	Dewhurst & Security	1813.53	Golf Club House	446.79	Johnson/Nicolls/Hamilton	12086.61	McGreer	3999.52	Morris	455.49	Chaufferie	722.38
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APPENDIX A: CALCULATIONS

Price Sports Complex	9586.24
MacKinnon Dr 5	300.7
Scott Arena	3166.53
Molson Fine Arts	1401.99
Workshops	563.35
Abbot	2396.65
Kuehner	2398.59
McKinnon	3721.96
Munster	2564.11
Norton-Pollack	3948.28
Divinity	819.36
Art gallery	782.24
Paterson	1635
Knowlton	451.6
Harrold Drive No 5	448
Harrold Drive No 4 (Courmier Center)	385.3
Buildings and Grounds	139.37
Warehouses (1,2,3,3a,4)	640.26
Theater-teaching (hangar)	423.5
Stadium	859.95
SUB	4973.17
TOTAL INTERIOR BUILDING AREA	72513.37

C: Energy consumed per square meter of indoor space (a/b): 1.29 GJ/m²
D: EEETP: 2086
E: Energy consumed per square meter of indoor space per EEETP (c/d): 0.000618 GJ/ m²/EEETP

I.3: Use of Energy for Vehicles and Non-stationary Equipment

Definition	I.3: Total amount of energy (of all types) consumed by the campus vehicles and equipment as a ratio by dividing by the EEETP.																																																
Calculations	<p>Energy consumed by campus vehicles and equipment:</p> <table border="1"> <thead> <tr> <th colspan="6">2009-2010 Fiscal Year - Diesel and Gas purchases</th> </tr> <tr> <th colspan="6">UNLEADED GAS</th> </tr> <tr> <th>Date</th> <th>Litres</th> <th>\$/L</th> <th>\$</th> <th>Taxes</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>21/07/09</td> <td>1455.4</td> <td>0.837</td> <td>1218.17</td> <td>156.84</td> <td>1375.01</td> </tr> <tr> <td>14/08/09</td> <td>1672.7</td> <td>0.914</td> <td>1528.85</td> <td>196.84</td> <td>1725.69</td> </tr> <tr> <td>14/09/09</td> <td>1973.3</td> <td>0.888</td> <td>1752.29</td> <td>225.60</td> <td>1977.89</td> </tr> <tr> <td>19/10/09</td> <td>2053.9</td> <td>0.833</td> <td>1710.90</td> <td>220.28</td> <td>1931.18</td> </tr> <tr> <td>04/12/09</td> <td>1929.5</td> <td>0.914</td> <td>1763.56</td> <td>227.06</td> <td>1990.62</td> </tr> </tbody> </table>	2009-2010 Fiscal Year - Diesel and Gas purchases						UNLEADED GAS						Date	Litres	\$/L	\$	Taxes	Total	21/07/09	1455.4	0.837	1218.17	156.84	1375.01	14/08/09	1672.7	0.914	1528.85	196.84	1725.69	14/09/09	1973.3	0.888	1752.29	225.60	1977.89	19/10/09	2053.9	0.833	1710.90	220.28	1931.18	04/12/09	1929.5	0.914	1763.56	227.06	1990.62
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APPENDIX A: CALCULATIONS

21/01/10	1635.9	0.907	1483.76	191.04	1674.80
08/03/10	1709.6	0.943	1612.15	207.57	1819.72
26/04/10	2095.6	0.929	1946.81	250.65	2197.46
02/06/10	2078.8	0.899	1868.84	240.61	2109.45
29/06/10	1976.0	0.912	1802.11	232.03	2034.14
Total	18580.7	9.0	16687.4	2148.5	18836.0

DIESEL

Date	Litres	\$/L	\$	Taxes	Total
21/07/09	1431.6	0.772	1105.20	142.29	1247.49
14/08/09	1142.5	0.859	981.41	126.36	1107.77
14/09/09	1443.4	0.798	1151.83	148.30	1300.13
19/10/09	606.8	0.829	503.04	64.76	567.80
04/12/09	1230.8	0.894	1100.34	141.67	1242.01
21/01/10	1582.2	0.894	1414.49	182.11	1596.60
08/03/10	1749.7	0.867	1516.99	195.31	1712.30
26/04/10	1046.4	0.889	930.25	119.77	1050.02
02/06/10	1045.2	0.898	938.59	120.84	1059.43
29/06/10	1399.2	0.883	1235.49	159.06	1394.55
Total	12677.8	8.6	10877.6	1400.5	12278.1

A: Litres of Unleaded Gas used: 18 580.7 L

B: Litres of Diesel used: 12 677.8 L

C: Conversion facture for Unleaded Gas (L into GJ): 34.66

D: Conversion facture for Diesel (L into GJ): 38.68

Obtained from National Energy Board. 2010. Energy Conversion Tables. Retrieved June 16th 2011 from <http://www.neb-one.gc.ca/clf-nsi/rnrgynfmtn/sttstc/nrgycnvrntbl/nrgycnvrntbl-eng.html#s2>

E: Energy consumption from Unleaded Gas (a*c): 644 007 GJ

F: Energy Consumption from Diesel (b*d): 490 377 GJ

G: Total Energy consumption for vehicles and non-stationary equipment (e + f): 1 134 384 GJ

H: EEETP: 2086

I: Energy consumed by campus vehicles and equipment per EEETP (g/h): 543.81 GJ/EEETP

J.1: Use of Inorganic Fertilizers

Definition

J.1: Total weight (in Kg) of inorganic solid or liquid fertilizers used annually, divided by the total area of the campus in meters squared.

Calculations

A: Total weight of inorganic solid or liquid fertilizers used annually: 0.0 L

The campus fields are fertilized using 50 pounds of natural fertilizer according to the assistant director of ancillary services/athletics, while the manager of the Lennoxville golf course uses approximately 500 pounds of organic fertilizer per

APPENDIX A: CALCULATIONS

	<p>year.</p> <p>B: Total area of the campus: 1 931 465. 48 m²</p> <p>C: Inorganic solid or liquid fertilizers used annually per square meter of campus: 0.0 L/m²</p>
--	--

J.3: Various Terrains on Campus

Definition	<p>J.3: Total surface area (m³):</p> <ul style="list-style-type: none"> - Natural Space - Manicured Green Space - Constructed Areas - Parking Space <p>Divided by the total area of the campus, multiplied by 100.</p>										
Calculations	<p>A: Total Surface Areas</p> <p><i>The information for the natural space and manicured space in this indicator are estimated using orthophotos of campus. For this reason the total campus area used below is not equal to the actual value and any discrepancy can be attributed to errors in digitizing the campus. The parking space area and constructed area information was obtained from building and grounds documents and is considered accurate.</i></p> <table border="1"> <tr> <td>Natural Space</td> <td>624 960 m²</td> </tr> <tr> <td>Manicured Green Space</td> <td>1 025 960 m²</td> </tr> <tr> <td>Constructed Areas</td> <td>34 110.66 m²</td> </tr> <tr> <td>Parking Space</td> <td>27 188 m²</td> </tr> <tr> <td>All of Campus (sum of above)</td> <td>1 712 218.66 m²</td> </tr> </table> <p>B: % of campus that is natural space: 36.5 %</p> <p>C: % of campus that is manicured green space: 59.9 %</p> <p>D: % of campus that is constructed area: 2.0 %</p> <p>E: % of campus that is parking spaces: 1.6 %</p>	Natural Space	624 960 m ²	Manicured Green Space	1 025 960 m ²	Constructed Areas	34 110.66 m ²	Parking Space	27 188 m ²	All of Campus (sum of above)	1 712 218.66 m²
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Constructed Areas	34 110.66 m ²										
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All of Campus (sum of above)	1 712 218.66 m²										

J.4: Density of Constructed Area

Definition	<p>J.4: Total Area (m²) of constructions (all floors of all buildings), divided by the overall imprint of the buildings on campus (m²).</p>														
Calculations	<p>A: Total area of constructions: 72 513.37 m²</p> <p>B: Overall imprint of buildings on campus: 34 110.66 m²</p> <table border="1"> <thead> <tr> <th><i>Building</i></th> <th><i>Imprint</i></th> </tr> </thead> <tbody> <tr> <td>Library</td> <td>1993.62</td> </tr> <tr> <td>Centennial Theater</td> <td>1878.06</td> </tr> <tr> <td>Dewhurst</td> <td>1371.12</td> </tr> <tr> <td>Old Lennoxville Club</td> <td>336.80</td> </tr> <tr> <td>Hamilton</td> <td>585.50</td> </tr> <tr> <td>Johnson</td> <td>1880.00</td> </tr> </tbody> </table>	<i>Building</i>	<i>Imprint</i>	Library	1993.62	Centennial Theater	1878.06	Dewhurst	1371.12	Old Lennoxville Club	336.80	Hamilton	585.50	Johnson	1880.00
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Dewhurst	1371.12														
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Hamilton	585.50														
Johnson	1880.00														

APPENDIX A: CALCULATIONS

Mac Greer	1416.61
Morris House	211.98
Mountain House	2172.63
Nicholls	916.00
Boiler Room	437.65
Price Center	4907.19
Mackinnon Drive No5	118.00
Scott Arena	3301.45
Molson Fine Arts	797.28
Workshop	316.07
Abbot	865.06
Kuehner	865.06
Mackinnon	1386.94
Munster	865.06
Norton Hall	492.65
Divinity House	288.84
Music & Bandeen Hall	869.46
Pollack Hall	235.25
Art Gallery	520.62
Patterson Hall	1771.60
Knowlton	441.50
Residence 16 (rue du College)	117.06
Residence 18 (rue du College)	113.75
Entrepot (rue du College)	261.46
Harrold Drive No5	164.00
Cormier Center	126.66
Terrain & Batiments	166.20
Entrepot 3a (Cold Storage)	28.30
Farm Management	385.60
Entrepot 4 (Paintshop)	68.11
Entrepot (Cold storage)	111.70
Entrepot (Storage workshop)	107.79
Entrepot (Storage Building)	377.20
Football Stadium	840.83
Total	34110.66

C: Area of constructions per area of buildings on campus (a/b): 2.13

Appendix B: Criteria for Sustainable Courses

Identification du contenu DD dans les cours

La méthode de codification du contenu de développement durable (DD) des cours de l'Université de Sherbrooke s'est fait en tenant compte de la description des objectifs et du contenu de l'activité en regard du DD ou de l'une des quatre dimensions du DD suivantes : économie, environnement, social et gouvernance. Le tableau suivant présente la liste des critères pour aider à l'identification du contenu, associé à chacune des quatre dimensions identifiées. Les critères et leur définition sont inspirés des 16 principes de la loi québécoise sur le développement durable www.mddep.gouv.qc.ca/developpement/principe.htm.

Économie	Environnement	Social	Gouvernance
Efficacité économique	Protection de l'environnement	Santé et qualité de vie	Participation et engagement
Internalisation des coûts	Préservation de la biodiversité	Équité et solidarité sociales	Subsidiarité
	Respect de la capacité de support des écosystèmes	Accès au savoir	Partenariat et coopération
	Production et consommation responsable	Protection du patrimoine culturel	Prévention
	Pollueur Payeur		Précaution

Expressions et mots clés en lien avec les principes de développement durable

Développement durable : Mention de l'expression « développement durable » dans le titre de l'activité ou dans sa description. Un cours qui traite de DD, inclue l'ensemble des dimensions du DD : économie, environnement, social et gouvernance. Le cours traite d'un thème en utilisant le DD comme exemple d'application, études de cas, contextualisation, etc. La discipline abordée permet une réflexion sur les enjeux de développement durable, fait l'analyse de problématiques et de résolution de problème en lien avec le DD, etc.

Économie : **Efficacité économique** / pratiques et mode de gestion, recherche et développement de produits et services, viabilité et sécurité des produits, qualité, durabilité, innovation, rentabilité, retombées économiques, environnementales et sociales. **Internalisation des coûts** / coûts générés par des externalités de production devant être assumés collectivement, production et compensations des externalités, règles de fixation des coûts, coût de recyclage et de valorisation, cycle de vie, impacts collatéraux. **Pollueur payeur, économie de l'environnement** / coûts liés à la pollution ou à la dégradation, coûts de dépollution, réduction et élimination de la pollution, compensation de la pollution, etc.

Environnement : De la perspective des impacts des activités humaines sur l'environnement. **Protection de l'environnement** / qualité et protection eau, air, sol. **Préservation de la biodiversité** / état des espèces, nature, rareté, processus de maintien, fragilité et valeur de la biodiversité, habitats naturels, pollution et atteinte aux écosystèmes.

Appendix B: Criteria for Sustainable Courses

Respect de la capacité de support des écosystèmes / processus et intégrité chimiques, biologiques ou physiques de l'écosystème, capacités d'adaptation de l'écosystème, potentiel de production, possibilités de régulation, fonction d'équilibres écologiques, régénérescence, milieux marins, forestiers, riverains, etc. **Production et consommation responsable** / responsabilité des producteurs, acquisitions responsables, économie locale, commerce équitable, efficacité énergétique, gestion responsable des ressources, des nuisances et des rejets, chaîne de consommation, analyse de cycle de vie, agriculture biologique, emballage, éco-conception, etc. **Pollueur payeur, économie de l'environnement** / coûts liés à la pollution ou à la dégradation, coûts de dépollution, réduction et élimination de la pollution, compensation de la pollution, etc.

Social : Santé et qualité de vie / promotion de la santé, état et bien-être physique, psychosocial, mental, comportements et modes de vie, sentiment de sécurité, liberté, accidents, accès à l'emploi, conditions de travail, amour et appartenance, estime de soi, réalisation de soi, environnement social, accès aux ressources, comportements à risque, etc. **Équité et solidarité sociales** / relations intergénérationnelles, acceptabilité sociale, diversité culturelle, critères d'embauche, accessibilité aux services, respect des droits, impartialité, respect des individus et des groupes, redistribution de la richesse collective, juste répartition des coûts ou avantages, équité salariale et évaluation des emplois, droits fondamentaux, cohésion sociale, justice, égalité, responsabilité envers autrui, transparence des processus décisionnels, etc. **Accès au savoir** / recherche et développement, innovation, activités de veille, formation, compétences professionnelles, échanges, compagnonnage/stage, mentorat, mise en valeur des compétences, transparence de l'information, publications, diffusion de savoir-faire, d'expériences, de pratiques, d'informations et de connaissances, information du public ou des consommateurs, disponibilité des connaissances pour les parties prenantes, etc. **Protection du patrimoine culturel** / lieux, paysages, traditions et savoirs, traits identitaires de collectivités, expressions, équipements, offre et activités culturelles, capacités d'identification et d'évaluation d'éléments culturels, etc.

Gouvernance : Politique, éthique, législation, norme, mondialisation. **Participation et engagement** / gestion participative, consultation et participation des parties prenantes, bénévolat et entraide, représentativité et respect de la diversité des groupes et individus impliqués, sentiment d'appartenance, mobilisation sociale, processus décisionnels (transparence, information, sensibilisation), concertation, consultation, collaboration, ouverture d'esprit, compromis, attitude envers les autres intervenants, etc. **Subsidiarité** / rôles des parties prenantes, délégation de pouvoirs, tâches et responsabilités au niveau approprié, articulation des compétences entre les niveaux, distribution des ressources nécessaires aux parties, processus de décision, communication, décentralisation, régionalisation, échanges, imputabilité (reddition de compte), devoirs et attentes envers les décideurs, etc. **Partenariat et coopération** / partage d'informations et d'expertises, mise en commun des ressources, engagement financier, concertation, synergie des efforts, appuis, collaboration et partenariat, responsabilités et actions de divers acteurs, intérêts individuels et intérêts communs, coopération et développement international, solidarité, etc. **Prévention** / connaissances relatives aux risques, existence de certitudes scientifiques, niveau, nature et gravité des risques et de leurs conséquences, groupes et individus concernés par les risques, mesures d'atténuation et de prévention des risques, surveillance des risques et de leur évolution, mesures de réduction

Appendix B: Criteria for Sustainable Courses

des risques, contrôle des activités à risque, programmes de prévention, etc. **Précaution** / état des connaissances scientifiques, potentiel de dommages, incertitude scientifique face aux risques, connaissances des conséquences de l'action, gravité estimée, mais non prouvée, évaluation de risques, possibilités de contrôle et de prévision des risques, processus de consultation, possibilités de réversibilité en cas de dommage grave, identification des responsables liés aux dommages potentiels, recherche d'alternatives, etc.

Pour votre information

À titre indicatif, voici en référence le modèle de « University British Columbia » (UBC) qui sert d'inspiration à la démarche de mise en ligne des cours : <http://www.sustain.ubc.ca/teaching-learning/curriculum/courses> .

Plan stratégique Réussir 2010-2015 de l'Université de Sherbrooke :

<http://www.usherbrooke.ca/reussir/>

Orientation 2.4 : « **Intégrer le développement durable dans les programmes d'enseignement et de recherche** »

Si vous avez besoin d'informations supplémentaires, n'hésitez pas à nous contacter

Conseillères en éducation au développement durable

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Appendix C: Course Integration

To increase sustainable content in educational content a pilot study was initiated wherein four selected courses were used to collect information for the sustainable audit. The four selected courses were Environmental Studies and Geography (ESG) courses: ESG 262: Introduction to geographic information systems, ESG 224: Human impact on the environment, ESG 261: Quantitative methods, and ESG 100: Introduction to environmental studies. Meetings were arranged with the professors of the courses to determine the extent and method of integration.

The ESG 262 class, introduction to geographic information systems, was responsible for digitizing orthophotos of campus. Polygons were created to represent areas dedicated to recreational space, natural green space and managed green space. The area of each polygon was calculated and these values were used to facilitate certain calculations in the audit. The visual output created also provided a nice portrait of campus land use.

The ESG 224 class, human impact, was divided into groups; each group was assigned an orientation and was responsible for determining the optimal data collection methods for their orientation. Their reports, along with Daphne Fishers 2008 report, were consulted when determining the optimal data collection method.

Seven surveys (Health & Wellness, Community, Economy & Wealth, Knowledge, Energy & Random, Material, and Water, Air & Land) were designed for the students in ESG 100, introduction to environmental studies. The surveys contained information pertinent (or of interest) to the CSAF indicators they were based on. Two groups of students were assigned to each survey and were responsible for administering the survey to approximately fifty campus community members. The results were to be used as information for various indicators; however the surveys were not precise enough and did not have enough responses to be used for audit calculations.

The results from these surveys were given over to the ESG 261 class, quantitative methods, which transformed some of the most important data into graphical depictions and quantitative results. These images may be displayed on the Bishop's University website, but as the information from the surveys was unusable these images are not applicable.

It is recommended that the course integration be discussed and decided upon before the academic year starts to assure the information is usable.



**COMPREHENSIVE ENERGY REDUCTION
AND
BUILDING RENEWAL PROGRAM**

Date: Feb 2010
From: Chair of the Building Committee
Re: Project Approval

RECOMMENDATION:

That this Project Overview on the Comprehensive Energy Reduction and Building Renewal Program be accepted as an item of information for the project approval.

ORIGIN:

Date: February 1st, 2010
The Building Committee received a presentation and a report detailing the energy reduction potential and building renewal program from Ameresco Canada Inc. The report provided an extensive opportunity for the University to address the need for energy reduction across campus and to initiate renewal projects that relate to the work to be performed for the energy program. The final program was also tabled.

ENERGY PROFILE:

Campus Today (2007 data):

Energy Cost:	\$1,399,579	
Building Area:	81,831 sq.m	(880,822 sq.ft)
Total Energy:	105,238 GJ	(29,232,780 ekWhr)
Tons of CO ₂ :	3,700	(2,100 cars)
Ratios:		
	1.29 GJ/sq.m	(33.18 ekWhr/sq.ft)
	\$17.10/sq.m	(\$1.59/sq.ft)

Campus Tomorrow

Natural gas reduction (- 64%)		
	41,512 GJ	(11,531,000 ekWhr)
Electrical Load (+ 17%)		
	5,559 GJ	(1,544,246 kWh)
Fuel oil reduction (-100%)		
	6798	(1,888,435 ekWhr)
Tons of CO ₂ reduction (- 66%)		
	2 364	(1,400 cars)

PROJECT OVERVIEW:

The core of the project is the elimination of all steam heating on campus.

PROJECT'S ARE:

The following is a list of measures/tasks that will be implemented over a period of 2 years:

1. Geothermal / Steam to Hot water conversion.
Conversion of existing steam heating system to hot water (in buildings).
De-Centralisation of Heating system.
Installation of Geothermal district distribution system
2. Upgrading Lighting.
3. Optimizing Campus Building Automation System
4. Optimizing future mechanical systems on campus
5. Encouraging in-house energy reduction campaigns
6. Recommissioning present Campus Building Automation System
7. Promoting energy awareness on campus

PROJECT FINANCIALS:

Project Cost: \$7,761,300
Payback: 9.8 years

BISHOP'S UNIVERSITY MANAGEMENT AND LIAISON TEAM:

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Bishop's University Project Co-Ordinator (to be named)

APPENDIX E: SUSTAINABLE AUDIT SURVEY

The following is a copy of the Sustainable Audit Survey sent to all CCM's in the winter of 2011.

Sustainable Audit Survey

This information is collected for the Bishop's University Sustainability Audit which is being undertaken to assess Bishop's current level of sustainability and where it can be improved.

The information in this survey is required for certain indicators in the audit and is being collected to assure that the audit will be as accurate as possible. As information is collected it will be made available on the website (sustainableaudit.webs.com) so that the campus community can view the progress being made on the audit.

Are you a student or an employee at Bishop's University? *

- Student
- Employee

Are you a full- or part-time student/employee? *

- Full time
- Part time

In what division do you study? For students only - if you study in more than one division please select the one which corresponds to your primary major

- Education
- Business
- Arts & Sciences

How many hours a week do you volunteer on-campus? * Please do not include off-campus hours

- 0
- 1
- 2
- 3
- 4 +

What is your expected debt load at graduation? For students only - please estimate to the nearest thousand dollars

Do you commute to campus? *

- Yes
- No

APPENDIX E: SUSTAINABLE AUDIT SURVEY

If yes, what is the make and year of your vehicle? This is needed to determine the energy consumed each year for commuting

If yes, what is the average distance per day that you commute to travel to and from campus? Also needed to determine the energy consumed each year for commuting

Do you self-identify as any of the following? *For staff and students

- a member of an Indigenous people
- a member of an ethnic minority
- a person with physical and/or mental disabilities
- none of the above