



Moving from Commitment to Results



Fleming College Sustainability Plan 2013 - 2018

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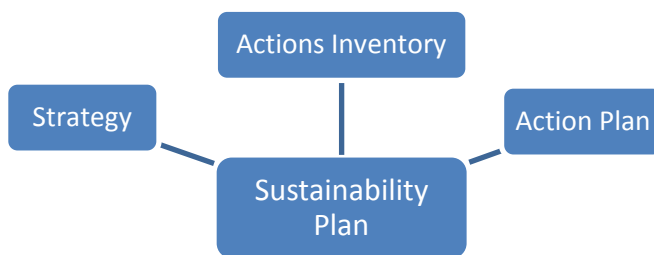
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Introduction

Purpose and Structure

The purpose of this Plan is to determine a vision of a sustainable Fleming College, set goals and strategies, develop implementation and action plans, and establish metrics in our effort to embed sustainability further into the Fleming experience – through operations, curriculum, and administration. Our Plan is meant to move us from corporate commitment to action.

The Plan’s structure includes three components: 1) the Strategy, 2) the Actions Inventory, and 3) the Action Plan.



The Strategy

The *Strategy*, represents the broader and longer term aspects of the Plan including the *Aspiration for Sustainability, Principles, Goals and Strategies*. This component of our Sustainability Plan is set for a five year term, however, it will undergo a cursory review every two years to ensure

relevance in light of potential changing conditions. The planning cycle will follow Fleming’s fiscal year and business planning cycle.

The Actions Inventory

The second component is the *Actions Inventory*. This component contains a listing of potential action items, associated with each of the *Strategies* that could be taken to achieve the Plan’s *Goals*. The actions inventory is a living document, meant to be augmented on an ongoing basis, as new ideas come forward from stakeholders and from applied learning projects undertaken by Fleming students.

The Action Plan

The third component is the *Action Plan*. Each year a number of actions to pursue will be chosen from the *Actions Inventory*. The actions are developed such that they can be completed in a one year time frame. At the end of each year the chosen actions will be reported upon, and new set of actions will be chosen for the following year. Thus, the *Action Plan* is to be reviewed and updated on an annual basis.

The successful implementation of our Sustainability Plan will be gauged in various manners, one of which will be achievement of a future rating of Silver or higher in the STARS (Sustainability Tracking, Assessment and Rating System) certification program. STARS is a public rating system developed by the Association for Advancement of Sustainability in Higher Education (AASHE). Currently, Fleming is rated as a Bronze level institution.

Background

Fleming College

With more than 6,500 full-time and 10,000 part-time students, Fleming College serves the communities of Peterborough City and County, the City of Kawartha Lakes, the County of Haliburton, and Northumberland County. The region is large and forms part of the Greater Golden Horseshoe which surrounds the Greater Toronto Area. It includes a mix of smaller urban centres and rural areas.

Fleming has something to offer to all students – post-graduate programs, joint degree programs, apprenticeships, diploma programs and certificates as well as part-time or continuing education courses, online courses and contract training. This range of choices allows for greater flexibility and accessibility to better meet the diverse needs of our students.

Fleming College is renowned as a world-class learning institution. While it attracts students of all ages from across Ontario and Canada, Fleming is also becoming a preferred choice for a growing number of international students.

Fleming is different. Through our unique programs and community-based delivery arrangements, we have established a proven record of innovation, academic quality and productivity, including:

- Multiple partnerships that include joint programs, shared space and/or shared services with Trent University, Ministry of Natural Resources, Ministry of the Environment, local municipalities and key regional agencies
- Specialized water-focused applied research, education and training
- Multiple program pathways for workplace level students
- Dual credit courses serving over 2000 students annually from five school boards
- Fundraising capability, including the largest alumni gift to an Ontario College (\$1M)
- Our 'Lean' process redesign, modeling proven and internationally recognized productivity improvements for the PSE sector

Sustainability Initiatives

The history of sustainability at Fleming is also a good news story. Our Frost Campus, with its focus on environmental and natural resource sciences, has traditionally lead the College in this area. Through the leadership of the Frost Sustainable Campus Initiative and our state of the art Centre for Alternative Wastewater Treatment, Frost has modelled sustainability both on campus and in working with regional and global partners. More recently, sustainability initiatives have emerged at other Fleming campuses and with unique community partnerships such as the joint City of Peterborough/Fleming development of the Peterborough Sport and Wellness Centre. Often, it is our students who have led the charge! For example, Frost Initiative students spearheaded the college ban on bottled water, one of a first in Canada, and the Fleming H2O program was implemented through the efforts of a group of marketing students.

In 2009, Fleming signed the Association of Community Colleges of Canada (ACCC) *sustainability protocol* publicly committing to supporting sustainability in our operations and curriculum. Fleming also joined

the Association for Sustainability in Higher Education and has recently completed their public assessment report (i.e. Sustainability Tracking and Assessment Review System).

Our commitment was repeated in Fleming's 2010 to 2015 Strategic Plan which set more specific goals regarding the development of a five year sustainability plan with clear objectives and benchmarks. With this Plan we are further articulating our commitment to sustainability at the corporate level and positioning ourselves to continue in our leadership role in sustainability amongst Ontario colleges.

Sustainability Defined

Sustainability is complex. It's been noted that well over 100 modern definitions for the term exist. And while the number of definitions is vast, they tend to have one common trait – they call into question the ability to endure under our current operating practices: be it organizations, institutions, or lifestyles. More recently the term, guided by the Bruntland Commission definition (1987), has come to mean the need to balance economic, environmental, and social needs, such that one area is not pursued at the expense of the others. Without balance our institutions (i.e. education, corporate, government) are not sustainable over time.

For post-secondary institutions, sustainability is quickly gaining prominence as an issue to be addressed. Beginning with the Talloires Declaration (1990), which represented the earliest concerted effort by post-secondary institutions to enact sustainable development policies, there have been a number of public commitments to embracing sustainability in higher education. Many leaders in higher education recognize sustainability as an imperative. At its greatest, it represents a total shift in mindset in all staff and students of the institution. In its simplest form it represents efficiency – using less resources to deliver the post-secondary experience.

Perhaps the opportunity for higher education institutions is best summed up as communities with “the potential to serve as models in the development and application of sustainability principles and practices, not only by what they teach and study, but also by how they operate facilities and engage with off-campus partners”. (Kelly, 2009)

Each college is free to define sustainability in its own terms. Sustainability at Fleming means:

- Students working on applied projects that improve social and environmental well-being;
- Concern for the environment and the health of the communities within which we operate is factored into all college decisions; and
- The College is operated in a manner which produces a net positive benefit on the environment and on social well-being while ensuring financial viability

“By 2015, Fleming will have moved from commitment to results in ecological, economic, and social sustainability through our programs and practices. The College will make substantial and measurable progress in all areas specified in the ACCC Sustainability Protocol (2009)”

Fleming College 2010-2015
Strategic Plan

Aspiration for Sustainability

Our *Aspiration for Sustainability* represents a desired and envisioned future state of Fleming College. It reflects how we would like to be seen and described as an organization, based on our social, environmental and economic performance. Our *Aspiration* statement is:

Fleming College's programs and practices demonstrate its commitment to building a sustainable future socially, economically, and environmentally for staff, students and the wider community.

Principles

Fleming's sustainability *Principles* represent the foundational ideas and values on which the Plan is built. They provide guidance for future decision making such that our plan's *Goals, Strategies* and *Actions* support these *Principles* to ensure that Fleming is moving towards its *Aspiration for Sustainability*.

The *Principles* which reflect our culture and guide our plan are as follows:

Communication & Collaboration

- Ongoing internal and external communication about Fleming sustainability initiatives
- Sharing of sustainability related experiences (programs, policies, and practices) across campuses, across programs, and with the community
- Interdepartmental and community collaboration on sustainability projects

Engagement & Integration

- Sustainability activities support the goals of other Fleming plans
- Sustainability integrated into the curriculum and into operational policies and practices
- Internal & external stakeholders engaged in development and implementation of sustainability initiatives
- Internal research and resources capitalized upon in pursuit of sustainability initiatives

Quality

- A learning experience that is current, relevant, and provides a sustainability skill set
- A learning environment that fosters innovation and “real world” experience
- An employment experience that provides work/life balance, fair remuneration, and embeds sustainability into everyday practices, processes, and education delivery

Stewardship & Accountability

- Responsible planning and management of financial, environmental, and human resources

Sustainability In Action



Frost Campus' community garden is example of an FSCI initiative.

- Protection and enhancement of environmental and ecological systems
- Advocacy and involvement in addressing local to global social justice issues
- Results of sustainability initiatives tracked and reported
- Financial measurement of initiatives where and when possible
- Sustainability as a metric for faculty and staff performance where appropriate
- Sustainability as a factor in capital expenditure decision making
- Implementable *Strategies* and *Actions*

Consultation Process

Fleming's efforts in developing this plan have been guided by a cross-functional and interdisciplinary steering committee of staff and student representatives and a broad-based consultation process. During the consultation we heard from over 200 people from a variety of internal and external stakeholder groups who attended one of 16 focus sessions. Open invitation focus groups were held at Sutherland, Frost, McRae and Haliburton campuses and were attended by a mix of staff and students. Individual classroom focus groups were conducted in the School of Justice and Business Studies, Environmental and Natural Resources Sciences and Skilled Trades and Technology.

Additional focus groups were held with key stakeholder committees as follows:

- Service Leaders Team
- Executive Leaders Team
- President's Advisory Committee
- Program Advisory Committee
- Sustainable Peterborough Steering Committee

Finally, further information was gathered from the applied projects of students in the Corporate Social Responsibility class (winter, 2013), which focused on researching sustainability issues among students.

The common themes that emerged across all of the groups included the following:

- Applied/Service Learning - increase applied and service learning opportunities related to sustainability, both on and off campus
- Awareness/Visibility – increase the awareness, visibility and tangible nature of current and future Fleming sustainability initiatives
- Collaboration - increase collaboration across programs and campuses; and with community sustainability initiatives
- Culture of Sustainability - create a culture which embeds sustainability into decision making and everyday thinking of staff and students
- Energy – reduce energy consumption and increase the use and generation of renewable energy (wind, solar)
- Quality of Educational Experience – ensure a relevant and current educational experience; incorporate a sustainability skill set into program outcomes
- Waste – reduce amount of paper and materials used

At times there was a strong correlation between the issues that concerned both internal and external stakeholders. For example, improving the public transportation to the college was a concern identified by students, staff and the Peterborough community.

The common themes, and supporting details, informed the *Principles, Goals, Strategies* and *Actions* articulated in this plan. The *Strategies* and *Actions* were further informed by the completion of the STARS benchmarking system which identified gaps where Fleming could focus in the categories of operations; planning and administration; and education and research.

Goals

Our *Goals* represent the overall objectives of our plan. They describe what we want to achieve, as opposed to how we want to achieve it, and they are steps which move us towards our *Aspiration for Sustainability*. They are broad based, medium to long term, and low in detail.

The *Goals* for our 2013-2018 Sustainability Plan are as follows:

1. Increase awareness and understanding of sustainability.
2. Incorporate sustainability into the student experience.
3. Reduce negative environmental impact of Fleming operations.
4. Improve the well-being of Fleming staff, students and the communities they serve.
5. Collaborate on sustainability initiatives.
6. Utilize sound business analysis for sustainability initiatives.

Strategies, Metrics and Targets

Our *Strategies* describe broadly how we are going to achieve our *Goals* by providing overall direction for an initiative. Unless otherwise stated, all metrics are to be achieved by 2018.

Goal 1: Increase awareness and understanding of sustainability.

Strategies:

- Ensure current sustainability initiatives are maintained and working as intended (e.g. compost program, living wall, EDGE)
- Increase visibility of sustainability initiatives
- Develop a formal communication plan around sustainability initiatives and their benefits targeted to internal and external audiences
- Develop a Fleming Office of Sustainability
- Increase our STARS rating

Sustainability in Action



Staff from Fleming's Centre for Alternative Wastewater Treatment completing a research project.

Metrics and Targets:

- Sustainability Survey – complete 3 surveys: Year 1 (baseline), Year 3, Year 5
- Number of sustainability outreach vehicles, programs and events – target six annually
- STARS Rating - achieve a minimum level of silver by 2015

Goal 2: Incorporate sustainability into the student experience.

Strategies:

- Incorporate sustainability into program curriculum and learning outcomes
- Build upon current sustainability initiatives within programs, including Fleming's aboriginal emphasis and international programming
- Increase the sustainability related applied learning opportunities – both on and off campus
- Use the “campus as curriculum” to teach about sustainability concepts (e.g. Frost campus as a living laboratory)
- Utilize Residence Eco Groups to assist in embedding sustainability into residence life
- Ensure sustainability is considered as part of program review cycle
- Establish and engage a sustainability champion from each academic school

Metrics and Targets:

- Number of sustainability focused & sustainability related courses – increase to 50% by 2018
- Number of sustainability immersive experiences
- Number of Students participating in community based learning (as part of their curricular and co-curricular experience) – achieve 40%
- Sustainability Literacy Assessment - graduate measurement in place

Goal 3: Reduce negative environmental impact of Fleming operations.

Strategies:

- Reduce annual potable water consumption
- Reduce annual energy consumption
- Reduce annual amount of waste generated and increase waste diversion rate
- Reduce overall greenhouse gas emissions
- Reduce the use of paper
- Improve and support alternative and public transit options for staff and students

Metrics and Targets:

- Total annual potable water consumption per square foot – reduce by 10% across all campuses
- Total annual energy consumption per square foot – reduce by 15% across all campuses
- Total annual waste generated per campus user – reduce by 10% across all campuses
- Total annual greenhouse gas emissions per weighted campus user – reduce by 10%
- Total annual amount of paper used – reduce by 30%

- Modal transportation survey – Year 1 (baseline), Year 3, Year 5 – achieve 50% of students and 20% of staff using sustainable transportation

Goal 4: Improve the well-being of Fleming staff, students and the communities they serve.

Strategies:

- Assist in implementing community sustainability plans (i.e. Our Kawartha Lakes, Sustainable Peterborough) through student projects and applied research
- Utilize mechanisms such as C-links to facilitate community-based education and research opportunities that support sustainability
- Monitor sustainable investment practices of endowment funds
- Monitor and evaluate staff awareness and engagement with sustainability initiatives on and off campus
- Increase local and/or sustainably produced content of food service offering and culinary programs (e.g. Fulfords Restaurant).
- Increase focus on integration and enculturation of our foreign students
- Utilize sustainability as a consideration in capital expenditure decisions

Sustainability In Action



The PSWC is a great example of sustainable building operations, and unique facility sharing to meet academic and community needs while lessening the carbon footprint that would have resulted from constructing and operating two separate facilities.

Metrics and Targets:

- Percentage of endowment fund investments meeting Jantzi Social Index parameters
- Number of applied projects related to implementing community sustainability plans
- Use of sustainability as parameter in capital expenditure decisions
- Employee engagement survey
- Percentage of local/sustainable content in food provided by 3rd party food service provider – achieve 40%
- Fleming diversity survey

Goal 5: Collaborate on sustainability initiatives.

Strategies:

- Develop strategies for enabling interdepartmental collaboration on sustainability projects
- Build capacity for faculty in developing and delivering sustainability curriculum by providing space for experimentation, risk taking and interdisciplinary, collaborative team teaching
- Utilize sustainability pilot projects as case studies to share with other programs and campuses
- Capitalize on Fleming water and alternative wastewater treatment programs on Frost campus

Metrics and Targets:

- Number of interdepartmental collaborations on sustainability projects
- Number of internal partnerships between academic programs/campuses that work to advance sustainability – 3 per year Years 3, 4, 5
- Number of partnership related projects, with external entities, that work to advance sustainability – target minimum 6 per year

Goal 6: Utilize sound business analysis for sustainability initiatives.

Strategies:

- Measure and report actual results of sustainability initiatives
- Utilize existing College process improvement strategies, such as LEAN, (green value stream mapping) to identify waste in areas of energy, water, materials, garbage, transportation, etc.
- Use business case methodology, including life cycle costing, to evaluate return on investment for proposed sustainability related capital expenditures
- Utilize life cycle assessment¹ (where possible) in capital expenditure decision making

Metrics and Targets:

- Total annual savings and benefits derived from sustainability initiatives
- Number of green value stream initiatives undertaken – complete 1 per year

Implementation

Successful implementation of our Fleming Sustainability Plan involves the following key components:

- Commitment of Senior Leadership
- Office of Sustainability
- Effective Plan Structure
- Engaging Staff & Faculty
- Continual Cycle - Progress & Reporting
- Resource Allocation

Commitment of Senior Leadership

In any organization, the commitment and support of senior leadership to an initiative greatly improves its chances of success. With a complex and challenging issue such as sustainability, senior level

¹ life-cycle assessment is a technique to assess environmental impacts associated with all the stages of a product's life from-cradle-to-grave (i.e., from raw material extraction through materials processing, manufacture, distribution, use, repair and maintenance, and disposal or recycling). Taken from: ^ "Defining Life Cycle Assessment (LCA)." US Environmental Protection Agency. 17 October 2010. Retrieved on May 7, 2013.

commitment is even more crucial. To date our commitment to sustainability by senior leadership has been demonstrated in the following ways:

- joining the Pan Canadian Protocol on Sustainability;
- joining Association for the Advancement of Sustainability in Higher Education;
- explicitly making sustainability one of the six priorities in Fleming’s current Strategic Plan; and
- investing in resources to support the completion of Fleming’s STARS certification

Going forward Fleming’s senior leadership will continue to publicly encourage and promote initiatives that advance Fleming towards its *Aspiration of Sustainability*.

Office of Sustainability

In order to ensure continual focus on sustainability, the implementation strategy includes the establishment of a Fleming Office of Sustainability (OOS), responsible for coordinating and implementing the Fleming Sustainability Plan. The OOS will also act as a resource for all staff, faculty and students to assist in their sustainability efforts and will act as a point of contact for all external enquiries regarding sustainability.

In addition, the OOS will act as a hub for collaboration among internal and external stakeholder groups.

Office Structure

The Office of Sustainability will have an Academic Lead and an Operations Lead (both partial FTE) who will work to realize the goals of this plan. To achieve the cross-functional strategies and actions, the Office will be cross-appointed to the Office of the VPA and to the Vice President of Finance and Administration through a matrixed reporting relationship as outlined below:

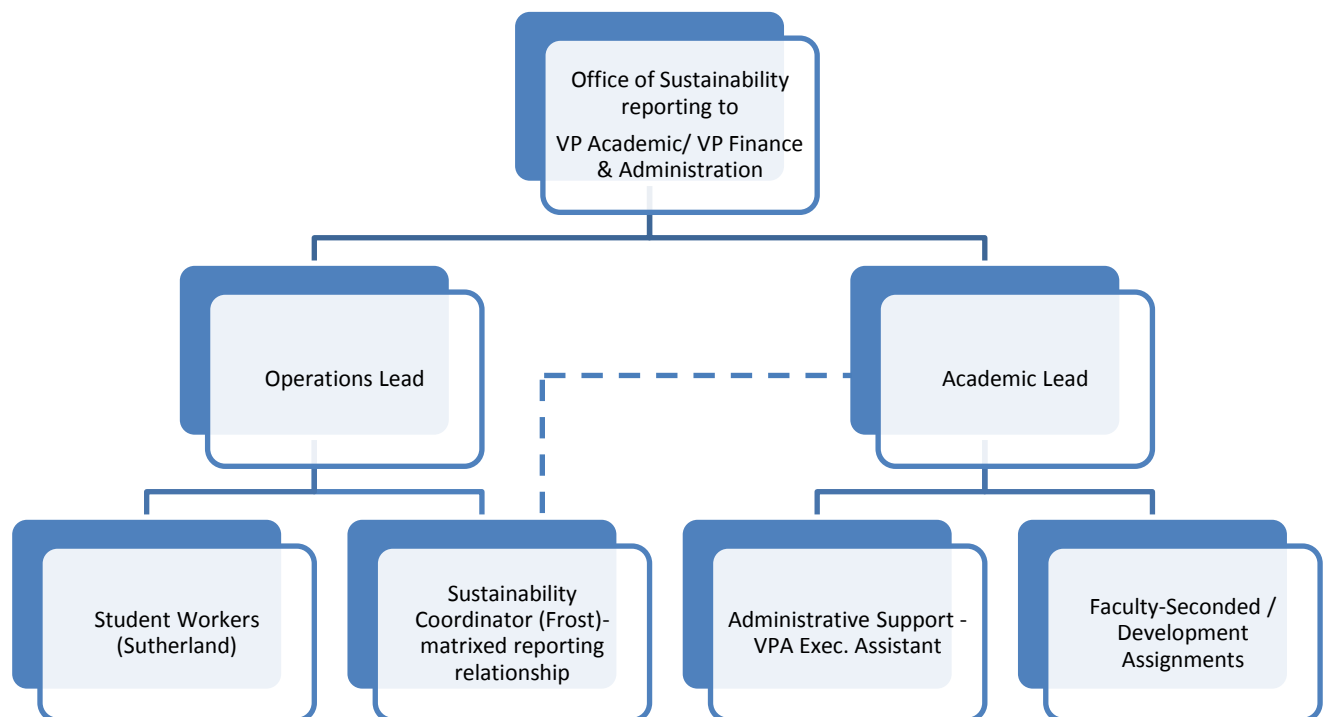


Figure 1 - Office of Sustainability Organizational Chart

While the Operations Lead and the Academic Lead will focus on their respective areas, their roles will cross into planning and administrative activities, and will include engagement with internal and external stakeholders in pursuit of their sustainability activities. In addition, the OOS will also assist in the development and coordination of student worker programs at all campuses.

Supporting the roles of the Operations and Academic Leads will be student workers, the Frost sustainability coordinator (dotted line reporting relationship), and various Faculty (through seconded/development assignments). Administrative support will come through the Executive Assistant for the Vice President, Academic.

Collaboration With Sustainability Groups

There are a number of committee and cross-campus relationships, which fall outside of a formal reporting structure, but are necessary to steer the direction and implementation of the Plan. There will be an ongoing requirement for the Fleming Sustainability Steering Committee and also some task forces to focus on the activities in the annual work plans.

Below is an overview of the envisioned model of collaboration between the OOS and other sustainability groups.

Fleming Sustainability Steering Committee – existing committee focused on steering the direction of Fleming sustainability efforts



Fleming sustainability efforts

Operations Task Force – new group of operations-focused individuals developing and implementing sustainability actions

Academic Task Force – new group of academic-focused individuals developing and implementing sustainability actions. Each school represented by one sustainability “champion”.

Figure 2 - Sustainability Resource Relationship (green represents existing group)

FSCI Steering Committee – existing group focused on Frost Campus sustainability initiatives

Student Groups – existing groups focused on advancing sustainability initiatives at their respective campuses

Community Sustainability Plan Steering Committees – existing external groups focused on developing and implementing their respective community sustainability plans (i.e. Sustainable Peterborough, Our Kawartha Lakes)

Effective Plan Structure

Our Fleming Sustainability Plan has been structured uniquely to facilitate constant movement forward towards our *Aspiration for Sustainability*. While the main strategy component is set for a 5 year term, the *Action Plan* is developed on an annual basis, drawing from the *Actions Inventory*. The *Actions* are developed such that they can be completed in a one year timeframe. *Actions* that are too large to be completed in a single year will be broken down into smaller components in order to avoid the “implementation paralysis” sometimes associated with plans that don’t break down the action into smaller bites.

Office of Sustainability Responsibilities

- Implementation of sustainability plan
- Communication on sustainability initiatives and results
- Knowledge transfer among internal stakeholders and with external stakeholders
- Pathway to sustainability resources – both human and financial
- Link to stakeholder groups – internal and external

The *Actions Inventory* will be augmented on an ongoing basis based upon feedback and ideas from stakeholders (both internal and external).

The *Action Plan* will be drawn from the *Actions Inventory*. The Action Plan will be drafted by the Operations and Academic Task Forces, approved by the Steering Committee and implemented by the Office of Sustainability, as outlined in Figure 4 below. Senior level approval ensured via VP Academic and VP Finance and Administration oversight of OOS. The Sustainability Plan and the Action Plan will follow the same planning cycle as the Fleming Business Plan and Budget. As such the “year” will run from April 1st to March 31st.

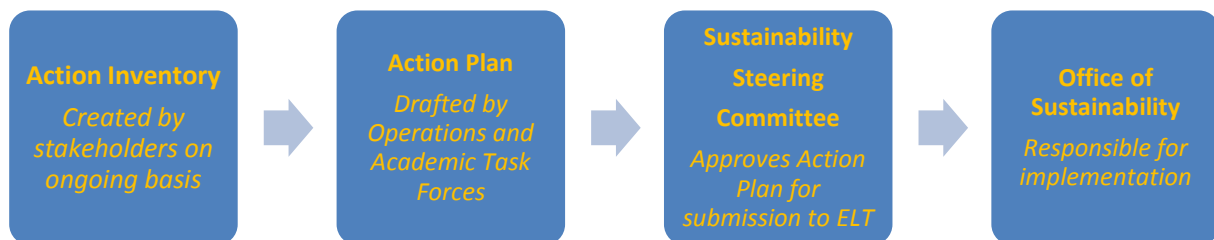


Figure 4 - Process for Action Plan Development

Engaging Staff and Faculty

While the association of students with Fleming may last two to three years, staff and faculty remain for a much longer period of time. Thus, staff and faculty have greater potential to infuse sustainability into the practices, programs and culture of Fleming, and involving them will be key.

Our implementation strategy will engage sustainability champions within these ranks, and draw upon their energy, ideas and current practices. This process will be facilitated by the Operations and Academic task forces. The goal of these task forces will be to infuse sustainability into their respective areas, and to educate, motivate, and empower other staff and faculty to create more sustainable practices in their areas of responsibility.

In addition, a pilot project approach will be taken in years one and two of this plan, whereby one program or operations practice at each campus will be chosen as an area of focus. Lessons learned will be shared and used to embed sustainability into other programs and operational practices across the College, and competition among campuses will be encouraged.

Continual Cycle – Progress & Reporting

Plan fatigue plagues many organizations, largely because results are often difficult to achieve and success is not celebrated and communicated. Structuring our Plan with single year *Actions* allows for continuous progress to be made on a number of fronts concurrently. As various *Actions* are completed, that progress, along with its associated benefits will be reported. Reporting vehicles will be determined through the development of a sustainability communications plan, and will likely include social media, internal emails, digital signage in eating areas, traditional signage, and an annual Fleming Sustainability Report.

Building upon our efforts in gathering metrics for the STARS report, we will continue to use STARS to benchmark and conduct gap analysis each year in the three categories: education and research; planning, administration and engagement; and operations.

Resource Allocation

Allocation of both human resources (time) and financial resources (money) will be required for successful implementation of the sustainability plan.

In general, all *Actions* will require an ongoing investment of time: either that of staff, faculty, students or a combination of the three. However, all *Actions* will not necessarily require an investment of money. In particular, any *Actions* completed by students as part of an applied project contributes to their education, and requires an investment of their time, but does not necessarily require an additional investment of money.

Below is an overview of the resource (time and money) implications of Fleming’s sustainability plan.

Operations

- combination of investment of staff time and financial investment in new operating related expenses, capital projects, and potential use of 3rd party consultants

- years 1 and 2 would focus on establishment of baselines as well pursuit of low-hanging fruit - low-cost & no-cost initiatives (i.e. minor weatherproofing, changing behaviour to lower utility consumption)
- years 3 through 5 would entail capital investments (i.e. more efficient equipment, enhanced insulation, system upgrades, building re-commissioning)
- potential for student applied projects is strong - particularly in establishing baseline data

Education & Research

- investment of faculty time associated with infusing sustainability into the curriculum as part of the curriculum renewal cycle (common block development)
- potential financial investment in curriculum development contracts to assist faculty in incorporating sustainability in curriculum, learning outcomes, and essential skill set
- suggested strategy would be to pilot one program at each campus in Year 1 – then build on learnings and roll out across several programs at each campus in Years 2 through 5 – therefore costs would be anticipated to be lower in Year 1 than in each of subsequent years of the Plan
- potential for student applied projects is limited

Planning, Administration, and Engagement

- initial and ongoing financial investment in OOS staff beginning in Year 1 of the Plan
- investment of staff time associated with development and implementation of policies, programs, and practices in Years 1 through 5
- potential for student applied project is strong

Plan Integration

Master Plan....Accessibility Plan....Business Plan....Strategic Plan. Like most colleges, Fleming does not suffer from a shortage of plans. “Plan fatigue” is a reality and a legitimate threat to successful development and implementation of our sustainability plan.

However, one of the unique aspects of sustainability is that it crosses the bounds of many plans and initiatives, and in fact supports the objectives of the key plans and policies currently in place at Fleming. Below is a table summarizing how the Fleming Sustainability Plan works as an enabling strategy for other Fleming plans, policies and initiatives.

Plan	Objective(s)	How Sustainability Plan Supports
Strategic Mandate Agreement	Erasing the Walls	Seeks to create multi-disciplinary approach to sustainability – to foster collaboration between programs, between campuses, and with communities we serve. Goal to promote collaboration on sustainability initiatives.

Plan	Objective(s)	How Sustainability Plan Supports
	Ontario's Centre Of Excellence In Environmental And Natural Resource Sciences	Recognizes the leadership role of Frost in Fleming's sustainability efforts. Seeks to capitalize and elevate Frost's sustainability initiatives, including its focus on environmental programs and water/ wastewater expertise.
	A Public Enterprise modelling productivity and performance	Operations related component of sustainability seeks to reduce use of resources and increase efficiency in delivering the Fleming experience.
Accessibility Plan	Identify, remove and prevent barriers to people with disabilities	Goal of improving the well-being of students and staff, coupled with STARS credits around diversity, support making Fleming more accessible.
Strategic Plan / Business Plan	Achieve excellence in student learning	Seeks to embed sustainability into curriculum through learning outcomes and skill set development ensuring education is current and relevant. Focus on increasing co-curricular and applied learning component of programs.
	Provide superior services & facilities	Seeks to create and operate facilities that have minimal negative impact on environmental and social well-being and over long term to create a "Living Lab" experience.
	Lead in sustainability	Self explanatory
	Grow with positive results	Sustainability will enhance the Fleming brand/experience and attract additional students, staff and faculty. Sustainability includes diversity and accessibility under its goal of improving the well-being of staff and students.
	Build community success	Seeks greater collaboration with communities through increased applied projects and through participation on community sustainability steering committees.
	Develop the Fleming working environment	Seeks to enhance the well-being of staff and students directly improving the Fleming working environment.
Divisional Priorities	School and department level priorities that support sustainability and are reflected in leadership objectives.	Sustainability plan creates structure and supports, in terms of the Office of Sustainability and the Academic Task Force to provide resources and assist faculty in incorporating sustainability.

Plan	Objective(s)	How Sustainability Plan Supports
Sutherland Master Plan	Natural Assets - Retain and enhance the major natural features of the site	Seeks to reduce negative environmental impact of Fleming operations.
	Land Use - Develop a compact academic core and intensify the surrounding land uses.	Seeks to reduce negative environmental impact of Fleming operations.
	Landscape Character - Reforest areas west of Sutherland Woods and around the residences, and develop low-maintenance flowering meadows in the existing open fields.	Seeks reduction of greenhouse gas emissions which is assisted by increased reforestation. Also seeks to formalize policies to utilize native, low maintenance vegetation.
	Connection to Sutherland Woods - strengthen the visual connection to the outdoors	Seeks to incorporate sustainability into the student experience. Also supports the construction of sustainable buildings, which incorporate exterior views into design.
	Transportation - Provide convenient and central access to transit AND promote cycling to and from the campus by connecting to the city's cycling network and providing end-of-trip facilities.	Seeks to improve and support alternative and public transit options for staff and students.
Applied Research at Fleming	Centre for Alternative Wastewater Treatment – regional and global focus on innovation in alternative wastewater technology	Seeks to incorporate applied learning and applied research in sustainability relating to water and wastewater management.
Environmental Policy	Recognition as leader for environmentally progressive approaches to design and operation of its buildings, and the stewardship of College lands and resources – including integration of curriculum.	Seeks to embed sustainability into operations, administration and curriculum, and to reduce negative environmental impact of Fleming operations.
E-Learning Strategy	Fleming's E-learning strategy sets targets for increased online learning and use of the College's learning management system.	Seeks to reduce greenhouse gas emissions and paper use, thus supports E-Learning which reduces necessity to vehicular travel to school and increase electronic access/distribution of course material, etc.

Conclusion

Sustainability has emerged as an imperative for the institutional, commercial, and industrial sectors, and there is evidence to indicate that improving social and environmental well-being, also improves financial well-being. The business case for investing in sustainability has evolved to include four main benefits: risk management, brand reputation, employee attraction and retention, and lower operating costs. These are equally as important to educational institutions as they are to corporations. By making the above noted investments Fleming will:

- reduce any risk associated with non-compliance to current or future legislation pertaining to environmental or social well-being (i.e. Ontario Green Energy Act, Accessibility for Ontarians with Disabilities Act)
- enhance its brand as a more sustainable college choice which in turn attracts more students as well as attracts and retains staff and faculty who want to be associated with a more responsible organization
- lower operating costs of Fleming facilities thereby improving financial viability

This Sustainability Plan guides us in continuing to move from commitment to action and sets clear measures of accountability for Fleming. By formalizing our commitment to sustainability in our operations, and most importantly, in our student learning, we are answering the call to take a leadership role. We also recognize the importance of working with our communities and in contributing our expertise in addressing local to global sustainability challenges – such as through the work of the Frost Campus Centre of Excellence in the environment and water/waste water management. Along with other higher education institutions, Fleming recognizes the need to educate the next generation of students to be equipped with the skills, knowledge and wisdom to address some of the important challenges of our time. This is our higher calling.

Acknowledgements

This Plan was created over a seven month period, and its completion was assisted greatly by the guidance of the Fleming Sustainability Steering Committee, which is made up of the following individuals:

Angie Sims	Director of Budget Services
Barry Knight	Manager, IT Services
Barb Winn	Haliburton Campus Representative
Becky MacFadyan	Communications, Marketing and External Relations Rep
Cindy English	Purchasing Representative
Dalton Irwin	Faculty – General Arts and Science
D’arcy McKittrick	Faculty – Justice and Business Studies
Jennifer Rasmdale	Faculty Development Facilitator
Jessica Spooner	SAC representative
Kayla Smith	Facilities Representative, Energy Management Specialist
Kate Borucz	SA Representative
Peter Hughes	Faculty, Health and Wellness
Maxine Mann	Director, Counseling
Blane Harvey	Vice-President Academic (ex-officio member)
Rob Arkell	Project Assistant – Sustainability / STARS
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In addition, this plan was informed by the contributions of over 200 focus group participants, representing a broad range of participants of faculty, staff, and students of Fleming College.

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Academic Leaders Team (ALT)	Academic Planning & Development Committee (APDC)
Executive Leaders Team (ELT)	President’s Advisory Council (AC)
Service Leaders Team (SLT)	Sustainable Peterborough Steering Committee

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Appendix A – Actions Inventory 2013-2014

The Actions Inventory represents a “storage room” of potential *Actions* that Fleming could take to move it towards its *Aspiration for Sustainability*. The inventory is meant to be added to continually with new ideas and suggestions coming from both internal and external stakeholders. From the *Action Inventory*, a number of actions will be chosen annually to form that year’s *Action Plan*. The *Actions* are to be developed such that they can be completed in a one year time frame. If a particular *Action* is too large to be completed in a single year, it will be broken down into smaller components, in order to ensure that it fits within the one year timeframe of the *Action Plan*.

The Actions Inventory has been organized according to the STARS categories, namely; operations, education and research, and planning and administration. Fleming submitted its STARS report for rating in 2013 and is committed to using the STARS methodology as a tracking and benchmarking tool. This will facilitate our plan to resubmit our report for rating in 2015 to improve our rating to the silver category or higher.

SHORT TERM (YEARS 1 – 2)	MEDIUM – LONG TERM (YEAR 3-5)
<i>OPERATIONS</i>	
<p>Waste</p> <ul style="list-style-type: none"> • Complete annual waste audit for all campuses and residences using consistent methodology • Participate in “Recyclemaniacs” competition • Implement on-campus awareness program to increase composting 	<p>Waste</p> <ul style="list-style-type: none"> • Develop a waste reduction/diversion program • Develop a paper use reduction program • Utilize clear garbage bags in residences to improve recycling • Implement a construction and demolition waste diversion program • Create paperless office
<p>Water</p> <ul style="list-style-type: none"> • Develop a potable water use reduction program • Eliminate timed flush valves in Men's Level 2 washroom at Sutherland campus • Eliminate timed flush valves in Drilling building at Frost campus 	<p>Water</p> <ul style="list-style-type: none"> • Complete a storm water management plan for Frost and Haliburton campuses • Implement rainwater capture system – Frost Drill Shop & Heavy Equipment • Implement rainwater catchment system for Living Wall at Frost • Replace showerheads and toilets with low-flow devices

SHORT TERM (YEARS 1 – 2)	MEDIUM – LONG TERM (YEAR 3-5)
<p>Energy</p> <ul style="list-style-type: none"> • Optimize heat glass recovery at Haliburton campus • Establish weekly monitoring/reporting for HVAC occupied/unoccupied mode at all campuses • Install Residence Building Electrical Sub-Metering at Frost campus • Install digital timers on display case lights at Frost campus • Upgrade Greenhouse Lighting at Frost campus • Install Variable Frequency Drives on Air Handling Units 15 and 16 (feeding LRC) at Sutherland campus • Optimize cafeteria exhaust systems at Sutherland and Frost campuses • Develop Energy Shutdown Procedure for cafeteria at Sutherland and Frost campus • Install automatic closer on dock door at Sutherland • Program TV's to turn off on nights and weekends at all campuses • Upgrade LRC variable air volume controls at Sutherland campus • Install air curtain at Sutherland campus front doors • Upgrade version of building automation system for all campuses • Integrate baseboard heaters with building automation system at Frost campus • Upgrade greenhouse boiler at Frost campus 	<p>Energy</p> <ul style="list-style-type: none"> • Research best practises for user fees regarding energy use in residences. • Investigate renewable energy generation opportunities at all campuses • Establish weekly electrical consumption load profiles at all campuses • Establish downtime electrical consumption reduction targets (nights/weekends) at all campuses • Investigate upgrading for more energy efficient Dishwasher for Culinary Program at Sutherland campus • Complete HVAC re-commissioning at all campuses • Implement HVAC optimization for all campuses • Complete LED lighting retrofit on room 374 at Sutherland campus • Investigate LED MR-16 bulbs for artwork in Great Hall at Haliburton • Investigate putting Hatchery Gas Meter on Main Gas meter at Frost campus • Incorporate Frost outbuilding into existing HVAC building automation system (ie Drilling, Heavy Equipment, NR Law) at Frost campus
<p>Transportation</p> <ul style="list-style-type: none"> • Complete annual survey of student and staff transportation modal split • Install specified parking spots closer to building for carpooling vehicles and electric vehicles • Develop incremental fee-for-service approach to enhance student transportation/parking 	<p>Transportation</p> <ul style="list-style-type: none"> • Develop & implement an alternative transportation support strategy • Purchase alternative fuel vehicles when replacing college fleet • Reward use of alternative modes of transportation through incentives & benefits • Track staff transportation costs between campuses • Offer more 'work from home' options to reduce employee travel • Create a more significant discount on bus passes – make them much more attractive than parking pass • Create ride/carpooling programs at campuses other than Frost (where it already exists) • Increase bus frequency and improve punctuality

SHORT TERM (YEARS 1 – 2)	MEDIUM – LONG TERM (YEAR 3-5)
	<ul style="list-style-type: none"> • Increase motorcycle parking • Reduce “gates open” periods for parking lots, to discourage use of cars • Make bike rack locations more convenient & visible • Develop shuttle bus between Sutherland and other campuses • Match up city bus schedules with GO bus schedules
<p>Food</p> <ul style="list-style-type: none"> • Develop a community garden at Sutherland campus – ideally connected to Residence 	<p>Food</p> <ul style="list-style-type: none"> • Incorporate sustainability into 3rd party food service contract and franchise operations
<p>Natural Landscape</p> <ul style="list-style-type: none"> • Conduct a land use inventory (including flora, fauna) at all campuses 	<p>Natural Landscape</p> <ul style="list-style-type: none"> • Protect and restore natural landscape • Implement a sustainable operations & maintenance program - formalize practices regarding integrated pest control, landscaping practices, snow/ice removal
<p>Greenhouse gas emissions</p> <ul style="list-style-type: none"> • Complete a college wide greenhouse gas inventory. 	<p>Greenhouse gas emissions</p> <ul style="list-style-type: none"> • Complete tree and carbon capture inventory of Fleming campuses • Achieve carbon neutral status for one Fleming campus (i.e. Frost Campus)
<p>Other</p> <ul style="list-style-type: none"> • Complete an inventory of all current sustainability initiatives at Fleming (Yr. 1) 	<p>Other</p> <ul style="list-style-type: none"> • Complete a review of college best practices in various areas of sustainability (i.e. waste, energy, transportation, water) • Complete LEED for existing building certification for a building on campus – extend learnings to other buildings • Repair the living wall at Frost campus
<i>EDUCATION & RESEARCH</i>	
<ul style="list-style-type: none"> • Undertake discussions broadly about how and where education for sustainability and sustainability literacy can be developed • Identify the critical student competencies to support education for sustainability (Yr. 1) • Review best practices and make recommendations on sustainability-focused faculty development programs 	<ul style="list-style-type: none"> • Incorporate sustainability concepts into Emerging Student Leaders Program • Develop and implement a sustainability literacy assessment for staff and students • Create a student sustainability educators program • Hold annual student focused sustainability-related event at all

SHORT TERM (YEARS 1 – 2)	MEDIUM – LONG TERM (YEAR 3-5)
<ul style="list-style-type: none"> • As part of common block development, deliver faculty workshops and provide tools to support faculty in embedding sustainability in programs • Provide faculty dedicated time for development of education for sustainability competencies to support dialogical and problem-posing participatory learning in the classroom • Incorporate sustainability into new student and staff orientation, prospective student tours, and open house • Set up an innovation fund for students to compete for in developing creative campus solutions for sustainability (\$5,000 per year per campus) • Utilize video terminals in food service areas to promote sustainability efforts • Develop shareable content around programs and curriculum regarding sustainability 	<p>campuses (i.e. Sutherland World Water Day, Frost Eco-Conference and Earth Hour events) and invite the community</p> <ul style="list-style-type: none"> • Create a model room in residence that demonstrates sustainable living practices • Develop and launch a student run sustainable enterprise • Increase the number of sustainability immersive experiences offered through programs • Support faculty renewal through providing time for professional development opportunities to conduct research and work on projects related to local and global sustainability issues • Investigate possibility of sustainability certificate upon graduation based upon formula of co-curricular activities + courses • Create a first year ‘sustainability overview’ course for all students to take • Create a ‘sustainability’ tour for each campus • Develop Frost Campus as a Living Laboratory for learning about sustainability • Review best practices and make recommendation to assist faculty in updating where appropriate exist course outlines to integrate relevant sustainability learning outcomes • Incorporate sustainability concepts into curriculum as part of program review process
<p><i>PLANNING, ADMINISTRATION, AND ENGAGEMENT</i></p>	
<ul style="list-style-type: none"> • Create Fleming ‘Office of Sustainability’, with dedicated resources, to provide corporate leadership • Add “Sustainability” page to the Fleming website • Develop an annual sustainability report card • Determine the number of internal and external sustainability related collaborations that work to advance sustainability • Determine the number of formal partnerships, with external entities, that work to advance sustainability 	<ul style="list-style-type: none"> • Develop & implement college climate change action plan to reduce greenhouse gas emissions • Embed sustainability into faculty & staff culture through decision support tools • Measure student body participation in community service and avg. number of hours per student • Include Community Service and applied learning (co-curricular and program related) on Transcripts

SHORT TERM (YEARS 1 – 2)	MEDIUM – LONG TERM (YEAR 3-5)
<ul style="list-style-type: none"> • Complete a review of best practices for ethical/socially responsible investment of endowment funds • Complete a review of best practices for utilizing sustainability and life-cycle assessment in capital expenditure decision making • Complete a green value stream mapping (LEAN) exercise on waste management and energy • Review College Environmental Policy for potential revision and/or edit given existence of sustainability plan 	<ul style="list-style-type: none"> • Develop graduation pledge (incorporating Sustainability) • Develop a sustainability pledge (incorporate social justice / environmental stewardship) for staff and students and measure participation levels • Provide annual staff training & professional development in sustainability • Incorporate sustainability into employee orientation program • Complete centralized list of current sustainability initiatives from all Fleming campuses • Develop Fleming KSI's – Key Sustainability Indicators • Develop case studies of current course, program and school initiatives (e.g. environmental leadership course, social service worker program and EDGE) to share • Develop a monthly sustainability newsletter or blog • Create a list of applied project opportunities that assist in implementing local community sustainability plans • Every other year, complete a survey of sustainability focused and related courses offered • Complete business case analysis of installing solar panels on campus properties • Complete Memorandum of Understanding to work collaboratively on sustainability initiatives with City of Peterborough, County of Peterborough, the County of Haliburton, and Municipality of Dysart etc. • Complete a review of requirements to implement sustainable investment practices regarding endowment funds • Promote use of Skype and video-conferencing for meetings • Incorporate sustainability into student engagement survey