

TOWARD A STRATEGIC MANDATE AGREEMENT FOR FLEMING COLLEGE



SIR SANDFORD FLEMING
Famous Canadian Engineer,
Cartographer, Innovator and Visionary

Original bronze sculpture by Phil White,
Dominion Sculptor of Canada and
Fleming alumnus

*Submitted to
The Ministry of Training,
Colleges and Universities*



October 2012

THE FLEMING COLLEGE STRATEGIC MANDATE AGREEMENT

Our submission is written with four goals in mind: (1) to demonstrate Fleming's capacity for innovation and productivity improvement in the most compelling terms; (2) to underline the unique relationship between Fleming and Trent University; (3) to be as explicit as possible regarding deliverables; and (4) to maximize clarity and readability in our format. Objectives and metrics are expressed in a five-year timeframe (2012 – 2017). Each objective includes a chart that addresses the criteria as set out in the submission guidelines.

FLEMING'S HERITAGE AND LEGACY

Sir Sandford Fleming was an immigrant and founder of the Royal Canadian Institute, Canada's oldest scientific society. He was an engineer, a cartographer, a pioneer and a visionary. He directed the building of the Canadian Pacific Railway, putting the Kawartha region and Canada at the forefront of technological innovation in the physical sciences and manufacturing.

MANDATE STATEMENT

Our three objectives for this Strategic Mandate Agreement highlight innovation in learning, differentiation in programming, and productivity models to improve service and performance.

True to our namesake and his legacy, Fleming College will be:

1. An innovator and exemplar in integrating education and work
2. Ontario's Centre of Excellence for applied education and applied research in environmental and natural resource sciences
3. A model of productivity and performance excellence in Ontario's postsecondary education system

FLEMING'S TRACK RECORD OF INNOVATION

Fleming is different. We are a key resource for the province and specifically for Central Eastern Ontario. Through our unique programs and community-based delivery arrangements, we have established a proven record of innovation, academic quality and productivity:

- Increased enrolment by 21% since 2007, with 60% coming from outside the region
- 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
- A comprehensive suite of programs in technology and skilled trades, business and justice studies, environmental and natural resource sciences, arts and heritage, general arts and sciences, and health and community development, with a strong focus on work-integrated and community-integrated learning delivered by a respected faculty and staff team
- Over 25 specialized programs essential to the growth of the Ontario economy
- Unique partnership with Centennial College for shared international student recruitment
- Dual credit courses serving over 1,500 students annually from three school boards
- Specialized water-focused applied research, education and training
- Productivity improvement: during 21% enrolment growth, the college reduced non-academic spending by 1% and grew other income by 33% (\$2M)
- Fundraising capability, including the largest alumni gift to an Ontario college (\$1M)
- Our "Lean" process redesign, modelling proven and internationally recognized productivity improvements for the PSE sector

FLEMING'S DELIVERY PROMISE

All organizations must focus on quality, results and sustainability. Innovation is the planning and implementation of purposeful changes – both large and small – that improve results in one of these dimensions without compromising the other two. Through innovation, Fleming College promises to:

- Be an acknowledged leader for work-integrated learning and partnerships
- Fulfill our holistic *Core Promise to Students*
- Guarantee experiential learning and e-learning modules in all programs
- Achieve enrolment growth of 1,000 students on the current campus footprint
- Implement 4 new programs in environmental and natural resource sciences
- Create 10 new degree completion pathway opportunities
- Build new north-south connections with Northern, Confederation, Boreal and Contact North
- Increase applied research infrastructure with a new GeoCentre, a joint Institute for Healthy Aging and an expanded Centre for Alternative Wastewater Treatment
- Provide an exceptional educational experience for Aboriginal students including a preparatory certificate program, superior cultural supports and Aboriginal courses within many programs leading to an Aboriginal Emphasis Certificate on the transcript
- Continue our strong commitment to employee engagement in order to deliver superior education and services
- Act as a partner and catalyst for public/private sector initiatives that generate prosperity and community success

FLEMING COLLEGE: LEARN, BELONG, BECOME

VISION

Students succeeding through personalized learning. Innovation and achievement powered by people.

MISSION

Fleming champions personal and career success through applied learning. We contribute to community success and sustainability through programs, services and applied research.

VALUES

- The student learning experience is our first priority.
- We value people and community.
- Fleming is committed to a sustainable future.
- We are inspired by Sir Sandford Fleming to innovate with vision and implement with excellence.

Increasingly, students, employers and partners choose Fleming because of our faculty and staff, our *Core Promise to Students*, our commitment to sustainability and collaborative approach.

THE FLEMING CORE PROMISE TO STUDENTS

At Fleming, you become part of a learning community. We engage you in personalized learning and provide personalized support. Set in welcoming communities, our smaller campuses provide a friendly environment where people know your name.

Close relationships, high expectations and a hands-on, minds-on learning experience help you develop the knowledge and skills, attitudes and values that lead to success at work and in life.

From here, you can go anywhere as you begin or change your career. Or, through well-developed educational pathways, you can pursue further educational opportunities.

You will experience first-hand our commitment to innovation in programs and practices, and to building sustainable, healthy futures for our people, communities and environment.

OBJECTIVE 1. ERASING THE WALLS

The emergence of the knowledge economy and major shifts in Ontario's demographics are redefining the paths to employment and the role of postsecondary institutions. At the same time, as Minister Glen Murray observes, many walls for learners who want a good job, career development or further education persist along these paths.

At Fleming, our first objective is to erase those walls – walls between youth and the trades, walls between schools and college, walls between college and university, walls between educators and employers, walls between students and learning. We will achieve this objective through four proven strategies: (1) work-integrated learning, (2) a leading partnership with Trent University, (3) school, college and community partnerships, and (4) innovative responses to the labour market needs of our region.

◆ **WORK-INTEGRATED LEARNING (WIL) AT THE CENTRE OF THE CURRICULUM.** WIL connects students and employers. It focuses the learning agenda and opens doors to employment. It is an explicit element of most programs at Fleming. WIL gives employers first-hand exposure to new talent and a direct role in the curriculum. Students gain real-life applied knowledge and skills. Our Applied Learning Enhancement Strategy promises that (1) all programs have a substantive WIL component and that (2) standards and protocols are in place to guide the successful participation of faculty, students and employers. This strategy will ensure the readiness of graduates for work, extend and deepen our collaboration with employers, develop new levels of education and work integration, and contribute to regional economic development.



WIL is the foundational strategy for our new 87,000 square foot Kawartha Trades and Technology Centre (KTTC). The KTTC will operate in partnership with industry and district school boards who will help design programs and pathways that make it easy for students to choose the trades as their career path. Our KTTC will also provide pre-apprenticeship and skills development programs for displaced workers and other adult learners

seeking employment in the trades. The KTTC will serve as a Skilled Trades Innovation Hub, a centre for students, employers and educators to collaborate on new technologies, assist entrepreneurs and encourage innovation in the trades and technology fields.

◆ **FLEMING + TRENT: A LEADING PARTNERSHIP.** Fleming College and Trent University have a shared commitment to innovation, community success and deep collaboration. Our common ground is broad and solid. It includes:

- Deep community engagement resulting in vital social and economic contributions to the prosperity of our region
- A primary focus on environment, health sciences and sustainability, including collaborative programs in Nursing and Ecological Restoration which are exemplary models of collaboration
- 200 students per year who transfer from Fleming to Trent with ease and academic success

Together, we will continue to stimulate innovation in our own institutions and in the region, achieve significant productivity gains, and develop models that can be replicated. Our efforts will include:

- Expanding and enriching degree completion programs and pathways
- Expanding community-based education opportunities that enrich both experiential learning for students and social development in our region
- Increased research and innovation initiatives in water/water quality and healthy aging leading to a regional innovation nexus in these domains

◆ **SCHOOL, COLLEGE AND COMMUNITY PARTNERSHIPS.** Erasing walls requires concerted and complementary efforts. We have a long tradition of working hand-in-hand with other PSE institutions, school boards, employers and our communities:

- We have 60 articulation agreements with 30 partner institutions offering students attractive credit transfer toward degree completion
- Through a unique resource-sharing partnership with Centennial College, we have increased our international enrolment significantly
- Fleming is providing Seneca College with on-the-ground support to enable the move of their Aviation/Flight Training programs to Peterborough
- We have committed to work with Confederation, Northern and Boreal colleges to enhance access to environmental and natural resource sciences specializations
- Partnerships are well established to deliver Aboriginal education in our communities including: community-based applied projects at all campuses, service learning commitments in many programs, and a solar energy training program in partnership with the Alderville First Nation community
- Our collaboration with district school boards and the regional SCWI planning team has resulted in exponential growth in Dual Credit activity

Going forward, we will engage community partners to expand community-based project opportunities that enrich experiential learning for students and socioeconomic returns to the community. Through the KTTC, we will leverage increased industry investment in the preparation of new entrants to the labour force and expand school-college-work transition programs for our secondary students. We will also grow our applied research with business and industry to drive economic development and innovation in our region.

◆ **REGIONAL RESPONSIVENESS.** Central Eastern Ontario is a complex mix of high density, rural and remote areas. It is a vibrant economic region that will grow with the province's investment in the 407 extension and other infrastructure expansion. Each Fleming campus offers distinct programs and is a common ground for learning, research, partnership and community development. We listen to our communities and we respond.

We respond to market needs through a unique portfolio mix of 70% core programs with a primarily regional draw, and 30% "destination" programs that attract approximately 80% of students from outside our region. Our unique offerings in natural resource sciences, environmental studies, sustainable building, and arts and heritage attract students from across the province and beyond, supporting Ontario's leadership in these sectors. The regional economic and social benefits that accrue from both regional students and the annual influx of students from outside the region are immense. These students engage in a rich and broad array of community-based applied learning projects and contribute significantly to the economy.

Through our Aboriginal Education Council, Aboriginal Emphasis Initiative and targeted programs and services, we commit to improve access, participation and the success of our Aboriginal learners and communities.

Working with employers, we are constantly evaluating our program mix and adding new programs in response to evolving market demands. We project that 5% of students will be enrolled in new programs each year. To maximize flexible delivery and ensure students can use technology as a key learning tool, every program will have a substantive e-learning component.

Our enrolment increased by 21% from 2007 to 2011, with strong demand within and outside the region. We have capacity to add 1,000 more students in facilities that are built and currently under construction (2014 completion). This is a substantive contribution to regional development and to Ontario's 70% PSE attainment objective.

1. ERASING THE WALLS	
STRATEGIC AREA	ACCOUNTABILITY METRICS/INDICATORS
Enrolment	<ul style="list-style-type: none"> • 1,000 additional students • 1,000 aspiring tradespersons-in-training annually • 200 students/year in collaborative degree programs
Differentiation	<ul style="list-style-type: none"> • Work Integrated Learning in every program • 300 Fleming to Trent transfers annually • Highest KPI rankings for applied learning • Highest KPI rankings for graduation rate • Health and Wellness applied learning commons • Institute for Healthy Aging • Justice skills applied learning centre
Productivity Improvements	<ul style="list-style-type: none"> • Work Integrated Learning in every program yielding enhanced learning and employment outcomes
Public Policy Requirements	<ul style="list-style-type: none"> • Apprenticeship reform • Funding support for rural colleges • Ongoing commitment to dual credits
Link to Government Principles	<ul style="list-style-type: none"> • Increased mobility/efficiency through PSE partnerships • Experiential/e-learning in all programs

OBJECTIVE 2: ONTARIO'S CENTRE OF EXCELLENCE IN ENVIRONMENTAL AND NATURAL RESOURCE SCIENCES

◆ **CURRENT STATE.** Located in Lindsay, Ontario, Fleming College's Frost Campus attracts 80% of its 1,800 students from outside the region. The School of Environmental and Natural Resource Sciences has a 60% market share in environmental and natural resource sciences education at Ontario colleges. Over 25 programs are foundational to the field; several are unique in Ontario and Canada. Specializations in Environmental & Ecosystem Studies, Forestry, Water Management, Fish and Wildlife, Drilling and Blasting, Heavy Equipment, Geographic Information Systems and Geosciences reflect the scope of programming. The curriculum is built on active learning, outdoor projects and field work; faculty engage students in applied problem-solving in partnership with industry and the public sector to advance ecological protection, pollution mitigation and resource stewardship.

Since 2000, the Government of Ontario, Fleming College and our partners have invested \$27M to build a new teaching wing; establish our Centre for Alternative Wastewater Treatment, and upgrade our facilities, including our fish hatcheries, pathology and biodiversity labs, green roof and the new Parnham Training Centre. We have launched or modified eight environmental and natural resource programs since 2007, including Arboriculture and Earth Resources co-op programs, Ecological Restoration and Urban Forestry collaborative degree programs, and two new graduate certificates in Sustainable Agriculture and Environmental Visual Communications.

In short, over more than 40 years, Fleming College has developed a one-of-a-kind, magnet campus that serves students and employers across Ontario. Students come from across the province; graduates work across Ontario and beyond. The campus has a strong basis for its current role, sound potential for a future role, and the capacity to attract industry partnership and investment.

◆ **A VISION FOR THE FUTURE.** Ontario comes to the Frost Campus. As the province rethinks post-secondary education, a logical next step is a strategic mandate that will take Fleming's School of Environmental and Natural Resource Sciences and the Centre for Alternative Wastewater Treatment to a next stage, charged with the responsibility to serve as a provincial resource. Fleming College proposes that the Government of Ontario work with the College and our partners to create a Centre of Excellence in these sectors, with a clear and ambitious responsibility and mandate. Elements of the mandate for this Centre of Excellence should include:

1. Provide a full suite of college specializations in environmental and natural resource programs and associated facilities and learning resources. An immediate priority is renewed investment in the Geosciences program cluster and facilities.
2. Focus on water-related specializations that will directly support and enable achievement of Ontario's Water Economic Development Strategy. This requires responsiveness to relevant ministries (MEDI, MOE, MNR, MNDM), agency initiatives and priorities and continued work with the Ontario Clean Water Agency. It involves developing the training and delivery system, the standards and qualifications framework and the certification that will serve Ontario and promote the province's resources on a global stage. Such an initiative requires an online infrastructure oriented to training of employees rather than education in full-time programs.
3. Increase access to this suite of programs and related expertise. Work in partnership with other colleges with natural resource specializations to support educational opportunities across the province. Initial partners through a Memorandum of Understanding will be Confederation College, Northern College and College Boreal.
4. Using existing, successful collaborative programs as models, implement a comprehensive set of pathways and degree completion opportunities that will integrate Ontario's college and university educational opportunities in environmental and natural resource specializations.
5. Expand the innovation nexus which includes our Industry Innovation Office, our internationally recognized Centre for Alternative Wastewater Treatment, and C-Links – a community venture to support regional development through community-based research projects. Innovation themes are industry/government/education partnership and strategies to address public policy priorities.
6. Provide state-of-the-art applied research that is responsive to public policy needs and objectives and private sector challenges and opportunities.
7. Model sustainability.

Fleming College proposes a bold idea, one that is truly transformational in terms of a differentiated role and responsibility. The College will be pleased to provide a full proposal, documenting benefits and commitments that would be required from industry partners, the College and the Province of Ontario.



2. A CENTRE OF EXCELLENCE FOR THE PROVINCE OF ONTARIO	
STRATEGIC AREA	ACCOUNTABILITY METRICS/INDICATORS
Enrolment	<ul style="list-style-type: none"> • 2,200 FTE students annually • 4 new programs and enriched program mix • Targets for training and certification set in conjunction with partners • Full-time enrolment plans based on provincial labour market needs
Differentiation	<ul style="list-style-type: none"> • Provincial commitment to a differentiated mandate • \$2M in applied research per year • A specialist role plus a responsibility to work with partner colleges to mutual benefit • 50+ partnerships with industry delivering innovation and technology adoption
Productivity Improvements	<ul style="list-style-type: none"> • Course offerings provincially that were otherwise not available or financially viable • Enhanced performance capacities for Ontario environmental practitioners • Reduction in development cost duplication • Strong industry linkages yielding \$4M in investment
Public Policy Requirements	<ul style="list-style-type: none"> • Commitment to a Centre of Excellence with a clear and explicit mandate consistent with public policy objectives
Links to Government Principles	<ul style="list-style-type: none"> • Consistency with Ontario's Water Strategy and emphasis on the environment and natural resources

OBJECTIVE THREE: A PUBLIC ENTERPRISE MODELLING PRODUCTIVITY AND PERFORMANCE

A sustainable future requires that BPS organizations become public enterprises, combining mandates to serve the people of Ontario with an enterprising, entrepreneurial spirit and initiative. Objectives 1 and 2 demonstrate elements of this as partnerships and pathways are ultimately productivity tools that reduce years of study, reduce development and delivery costs and stretch investment of public funds across organizations. In addition, this third objective addresses productivity in four other contexts: space and facilities; lean process improvement; shared services; and revenue generation.

◆ **SPACE AND FACILITIES.** Our Sutherland Campus hosts the St. Joseph's at Fleming long term care facility and the Peterborough Sport and Wellness Centre. The latter is a \$14 million facility serving Fleming students and Peterborough City and County residents. While it contributes significantly to the highest athletics and recreation KPI scores in the province, it is the lowest-cost college athletics facility in Ontario from an operating standpoint because of student and City involvement. Fleming and the City of Peterborough will develop a \$6 million sports fields facility with artificial turf, scheduled to open in 2013. Similarly, the Kawartha Trades and Technology Centre (2014) will avoid duplication of public expenditures by becoming a hub for secondary school education in the trades. From 2015 forward, our focus will be on further joint opportunities and accompanying savings and cost avoidance, as envisioned in the Fleming College Campus Master Plan.

◆ **LEAN.** We are one of the first Ontario colleges to bring internationally recognized Lean process improvement into a CAAT. Results in 2011/2012 are impressive in terms of employee engagement, implications for students and cost savings. With Board of Governors' support, we are committed to a five-year cycle of Lean process improvement that will support growth and service expansion without corresponding complement expansion. Employees are active and effective participants, working with

us to streamline work, improve services and build capacity. We are also collaborating with Algonquin College on Lean initiatives and will seek to expand this work and share best practices with other colleges. Projected savings over a five year period are \$3.7 million, permitting support for growth without corresponding complement increases.

◆ **SHARED SERVICES.** Productivity improvements are also being achieved through consortia that reduce duplication in investment costs (e.g. OPEN – the Ontario PeopleSoft Education Network, involving six colleges) and increase purchasing power (e.g. the Kawartha Collaborative Purchasing Group, undertaking six projects involving twelve member organizations in the BPS). Our intent is to develop and capitalize on college consortium-based and regional initiatives to complement system-wide commitments. Savings estimates will be established in 2013 as these initiatives mature.

◆ **REVENUE GENERATION: Leveraging Ontario Expertise Nationally and Internationally.** A further opportunity for entrepreneurial thinking and revenue generation will extend Ontario-based research and expertise in water and wastewater management. Our Centre for Alternative Wastewater Treatment (CAWT), known internationally as a leader in applied water research, has demonstrated success in developing innovative solutions and commercialization opportunities as a means to generate revenue and realize the objectives of the Water Opportunities Act. The five-year objective is a revenue stream from international consulting and training, providing a return on public investment in applied research.

3. A PUBLIC ENTERPRISE MODELLING PRODUCTIVITY AND PERFORMANCE	
STRATEGIC AREA	ACCOUNTABILITY METRICS/INDICATORS
Enrolment	<ul style="list-style-type: none"> • Growth is supported by cost-effective facilities and lean services, enabling needed investment in academic resources
Differentiation	<ul style="list-style-type: none"> • Achieve our Core Promise through targeted initiatives enabled by a full suite of productivity improvement strategies
Productivity Improvements	<ul style="list-style-type: none"> • Multi-year strategy to absorb 2% inflation costs annually will continue through partnerships and pathways and through the four elements in Objective 3
Public Policy Requirements	<ul style="list-style-type: none"> • Flexible rather than directed shared serve strategies • A “public enterprise” approach that decentralizes authority, encourages and supports innovation, and streamlines monitoring and reporting • Long-term support as applied research develops in Ontario’s colleges and contributes to the province’s water-related expertise and investment strategy
Link to Government Principles	<ul style="list-style-type: none"> • Consistent with objectives and strategies in <i>Strengthening Ontario’s Centres of Creativity, Innovation and Knowledge</i>

CONCLUSION

Given our location, our expertise, our reputation and the strength of our relationships, Fleming College is a unique resource for applied learning and applied research in Central Eastern Ontario. We are responsive to the pulse of the region. We are flexible. We have met and we will meet the changing needs of employers, the evolving expectations of students and the emerging demands of technology and new work environments. With our integrated approach, we are developing models for PSE that are scalable and portable. Like Sir Sandford Fleming, we embrace change and challenge with imagination and a pioneering spirit. We stand ready to serve our region and the province of Ontario through partnerships, specialization and innovation.