

Key Research Findings

This analysis was based on the pre-determined criteria and measures listed below:

Section	Description	Measures
Student Demand	<p>Includes an assessment of OCAS (2007 - 2011) enrolment data at other colleges in terms of mean growth rate with a specific focus on Fleming's direct competitors where appropriate (Georgian, Sheridan, Seneca and Durham)</p> <p>Trends in certificate, diploma, degree, apprenticeship and continuing education (where available).</p> <p>Click Below to Access Full Source Document: Fall Enrollment Trend</p>	<ul style="list-style-type: none"> ● Strong = Fleming enrolment growth is outpacing system and is equal to or greater than 3% ● Moderate = Fleming enrolment growth is equivalent to system demand and is between 1.0 to 2.9% ● Weak = Fleming enrolment growth is less than the system demand and is less than 1%
Labour Market	<p>Includes projected employment rate growth based on a consolidation of various Ontario, Canadian, and US sources including HRSDC, Sector Council Reports US Bureau of Labour Statistics, and the MTCU Employment Profile.</p>	<ul style="list-style-type: none"> ● Strong = Between 5-6 positive labour market indicators ● Moderate = Between 3-5 positive labour market indicators ● Weak = Between 1-2 or no positive labour market indicators
Competitive Analysis	<p>Includes the number of actual colleges offering the program as well as the ratio of applications to acceptances at Fleming compared to other colleges and specific comment about Fleming's direct competitors where appropriate (Georgian, Sheridan, Seneca and Durham)</p> <p>Click Below to Access Full Source Document: Fall Conversion Report</p>	<ul style="list-style-type: none"> ● Strong = Fleming conversion ratio is greater than 2 below the system ● Moderate = Fleming conversion ratio is 1 above, below or equal to the system ● Weak = Fleming conversion ratio is greater than 2 above than the system
Financial Analysis	<p>Includes a review of Contribution to Overhead (CTO) for existing programs (2010-11)</p> <p>Click Below to Access Full Source Document: Costing Analysis</p>	<ul style="list-style-type: none"> ● Strong = CTO is greater than 35% ● Moderate = CTO is between 30 - 34% ● Weak = CTO is between 20 – 30% <p>No Contribution = 19% or less</p>

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Key Performance Indicators	<p>Includes KPI trends from the Key Performance Indicator Summary 5 Year Historical Overview KPI Data from Reporting Years 2008-2012.</p> <p>Click Below to Access Full Source Document: Key Performance Indicators</p>	<ul style="list-style-type: none"> ● Strong = Above system average in 6-7 indicators ● Moderate = Above system average in 3-5 indicators ● Weak = Above system average in 0-2 indicators.
Resource Analysis	<p>Requires school level assessment regarding space, technology, capital equipment and human resources. Recommendations from recent Program Review Reports included here</p>	

Key Research Findings

Conservation and Law Enforcement (74200)

Student Demand¹ • **STRONG**

The following information consists of OCAS yearly student fall registration data as well as a mean growth rate and average student registration for each program under these categories:

Graduate Certificate

- Fleming experienced the largest growth in the past 5 years from 2010-2011 with **10 more** students registering in 2011

Graduate Certificate

Program: 74200 - NATURAL RESOURCES TECHNOLOGY - LAW ENFORCEMENT														
	2007 2008 % Change (07-08)			2008 2009 % Change (08-09)			2009 2010 % Change (09-10)			2010 2011 % Change (10-11)			% Mean Growth Rate (07-11)	5 Year Average Reg. Students
FLEMING	27	29	7	29	30	3	30	28	-7	28	38	36	10	30
Total	27	29	7	29	30	3	30	28	-7	28	38	36	10	30

Labour Market • **STRONG**

HRSDC²

Conservation and Fishery Officers (NOC 2224)

- Job Openings (2011/2020): **18,006**
- Job Seekers(2011/2020): **15,255**
- Post Secondary Education Graduates: **14,998 (98%)**
- “Based on projections and considering that labour supply and demand for this occupation were balanced over the 2008-2010 period, it is expected that the number of job seekers in this occupation will continue to be sufficient to fill the job openings over the 2011-2020 period. The majority of job openings will result from retirements, the retirement rate being higher than employment growth. Nevertheless, employment growth will be higher than average, benefiting from the continuing increase in landscaping and horticulture spending. With regard to labour supply, the majority of job seekers will come from the school system.”

¹ Registration data obtained from the Program Counts by Applicant Type Report (RPT0050P) in the OCAS Reporting and Analytics Cube December 7, 2011. Some programs/colleges may not be included because they were missing MCU codes in the OCAS dataset Prepared by Fleming Data Research (07-2012)

² "Technical Occupations In Life Sciences (222)." *Human Resources and Skills Development Canada*. N.p., n.d. Web. 25 July 2012. <<http://www23.hrsdc.gc.ca/occupationsummarydetail.jsp?&tid=39>>.

Key Research Findings

US Bureau of Labour³

- Employment Growth (2010/2020): **Increase 5%**
 - **7,600(2010) to 7,900(2020)**
- “Employment of police and detectives is expected to grow by 7 percent from 2010 to 2020, slower than the average for all occupations. Continued demand for public safety will lead to new openings for officers in local departments; however, both state and federal jobs may be more competitive.”
- “Because they typically offer low salaries, many local departments face high turnover rates, making opportunities more plentiful for qualified applicants. However, some smaller departments may have fewer opportunities as budgets limit the ability to hire additional officers.”
- “Jobs in state and federal agencies will remain more competitive as they often offer high pay and more opportunities for both promotions and inter-agency transfers. Bilingual applicants with a bachelor's degree and law enforcement or military experience, especially investigative experience, should have the best opportunities in federal agencies.”
- “The level of government spending determines the level of employment for police and detectives. The number of job opportunities, therefore, can vary from year to year and from place to place. Layoffs are rare because retirements enable most staffing cuts to be handled through attrition. Trained law enforcement officers who lose their jobs because of budget cuts usually have little difficulty finding jobs with other agencies.”

Sector Councils and Reports

- [Ontario Conservation Officers Association](#)
- <http://conservation-ontario.on.ca/>

³ Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, 2012-13 Edition, Police and Detectives, on the Internet at <http://www.bls.gov/ooh/protective-service/police-and-detectives.htm> (visited July 25, 2012).

Key Research Findings

Working in Canada⁴

Conservation and Fishery Officers (NOC 2224)

- Ontario Rating: **Not Available**

- **Wage Range by Region:**

Location	Wage (\$/hr)		
	Low	Median	High
Ontario	15.50	26.74	39.17
Hamilton--Niagara Peninsula Region	13.83	26.86	57.95
Kingston - Pembroke Region	16.39	22.02	29.00
Kitchener--Waterloo--Barrie Region	17.05	26.91	45.09
London Region	12.62	23.50	29.11
Muskoka-Kawartha Region	28.27	34.80	40.06
Northeast Region	20.08	27.52	31.76
Northwest Region	19.56	28.36	31.15
Ottawa Region	13.76	33.76	41.86
Stratford--Bruce Peninsula Region	10.25	21.05	28.63
Toronto Region	15.48	21.38	24.26
Windsor-Sarnia Region	N/A	N/A	N/A

Competitive Analysis⁵

- **MODERATE**

The following information consists of OCAS yearly fall application and registration data as well as a conversion ratio for each program under this category:

Graduate Certificate

- Fleming has varied between **4:1** and **5:1** for applications to registration conversion rates over the past 5 years. So it might be worth a look at how we can keep more of our applicant students each year to lower the ratio and increase enrolment

⁴ "Conservation and Fishery Officers (NOC 2224)." *Working in Canada*. N.p., n.d. Web. 25 July 2012.

<[http://www.workingincanada.gc.ca/report-](http://www.workingincanada.gc.ca/report-eng.do?area=8792&lang=eng&noc=2224&action=final@ionKeyword=Peterborough%2C+Ontario&s=1&source=0&titleKeyword=conservation+officer#report_tabs_container2)

eng.do?area=8792&lang=eng&noc=2224&action=final@ionKeyword=Peterborough%2C+Ontario&s=1&source=0&titleKeyword=conservation+officer#report_tabs_container2>.

⁵ Application data obtained from OCAS College Count Cube October 19, 2011 Registration data obtained from the Program Counts by Applicant Type Report (RPT0050P) in the OCAS Reporting and Analytics Cube December 7, 2011. Some programs/colleges may not be included because they were missing MCU codes in the OCAS dataset Prepared by Fleming Data Research (07-2012)

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Graduate Certificate

Program: 74200 - NATURAL RESOURCES TECHNOLOGY - LAW ENFORCEMENT															
	App. 2007 Reg. 2007 Conversion Ratio			App. 2008 Reg. 2008 Conversion Ratio			App. 2009 Reg. 2009 Conversion Ratio			App. 2010 Reg. 2010 Conversion Ratio			App. 2011 Reg. 2011 Conversion Ratio		
FLEMING	122	27	5:1	114	29	4:1	125	30	4:1	134	28	5:1	133	38	4:1
Total	122	27	5:1	114	29	4:1	125	30	4:1	134	28	5:1	133	38	4:1

Financial Analysis

NO CONTRIBUTION

Source: Program Costing Analysis 2010/2011

- Contribution to Overhead: -3.7%
- Program Weight: 1.00
- Funding Unit: 1.30

Key Performance Indicators

• **MODERATE**

Source: Key Performance Indicator Summary 5 Year Historical Overview KPI Data from Reporting Years 2008-2012

KPI1-Graduation Rate	-9% below system
KPI2-Working	-16% below system
KPI3-Working Related	-10% below system
KPI4-Grad. Satisfaction	+3% above system
KPI8-Student Satisfaction-Learning	+6% above system
KPI9-Student Satisfaction- Teachers	+6% above system
KPI11-Grad. Satisfaction-Program	+1% above system

Resource Analysis

Equipment

Staffing

The following information was extracted from the 2010 program review:

- Hire a full time technologist that can be shared with the Fish and Wildlife program.

Space

Key Research Findings

Appendix

The following is the original environmental scan conducted by the Library Researchers to form the basis of the previous summary of Key Research Findings Report.

Overview of the Profession:

Conservation and Fishery Officers (NOC 2224)

<http://www.workingincanada.gc.ca/report-eng.do?noc=2224&area=8792>

Description

Conservation and fishery officers enforce the federal and provincial regulations established for the protection of fish, wildlife and other natural resources and collect and relay information on resource management. They are employed by federal and provincial government departments.

Included Job Titles

conservation officer
fish and wildlife officer
fishery officer
forest ranger – wildlife management
game officer
game warden
natural resources officer
park ranger

Job Duties

Conservation and fishery officers perform some or all of the following duties:

- Generate public awareness of fish and wildlife conservation and regulations
- Conduct patrols by truck, aircraft, boat, or on foot, to ensure compliance with the provincial and federal statutes relating to fish, wildlife and the environment
- Investigate complaints, arrest violators, prepare briefs and present evidence in court
- Issue licences, export documents and special permits and collect royalties assessed on fish, wildlife and timber resources
- Implement and supervise approved techniques in preventing or overcoming damage caused by wildlife
- Perform resource protection duties
- Gather resource data by making inventories of fish, collecting water samples and assisting biologists in scientific research
- Supervise or provide firearms safety training courses and trapper education courses.

Labour Market

Working in Canada

1. Employment potential for the Kawartha Region (or anywhere else in Ontario) is “Not Available” (Working in Canada)

http://www.workingincanada.gc.ca/print_report-eng.do?noc=2224&area=8792

HRDSC

2. National Outlook – 10-Year Projection (2011-2020)

Key Research Findings

<http://www23.hrsdc.gc.ca/occupationsummarydetail.jsp?&tid=39>

This occupation (Fish & Wildlife Technician) is part of a larger occupational group called **Technical Occupations in Life Sciences (NOC 222)**

Occupations in this group	Biological Technologists and Technicians (2221) Agricultural and Fish Products Inspectors 2222) Forestry Technologists and Technicians (2223) Conservation and Fishery Officers (2224) Landscape & Horticultural Technicians & Specialists (2225)
Employment (non-student) in 2010	39,195
Median Age of workers in 2010	39.5 years old
Average Retirement Age in 2010	59 years old

3. Estimated that there will be more job seekers in this field than job openings for the 2011-2020 periods (job openings are expected to total 18,006. It is expected that 15,255 job seekers will be available to fill these job openings). Nearly all job seekers will come from the school system (98%) with 10% from immigration and (-8% other)
4. Over the 2008-2010 period, employment in this occupation declined
5. According to Employment Ontario the Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013.
6. According to Employment Ontario (Estimates 2006), 4% of workers in this group were self-employed, and 85% Full-Time
7. Local wage for Peterborough/Kawartha Region 2010:
 - o Low: \$14.95 Average: \$23.00 High:\$ 32.82

http://www.workingincanada.gc.ca/print_report-eng.do?noc=2221&area=8792

US Bureau of Labour

Fish and game wardens enforce fishing, hunting, and boating laws. They patrol hunting and fishing areas, conduct search and rescue operations, investigate complaints and accidents, and educate the public about laws pertaining to their environment.

This occupation falls under the broader category of

Police & Detectives

Job Outlook

Police and Detectives

Percent change in employment, projected 2010-20

Total, All Occupations

14%

Protective Service Occupations

11%

Police and Detectives

7%

Note: All Occupations includes all occupations in the U.S. Economy.

Source: U.S. Bureau of Labor Statistics, Employment Projections program

Employment of police and detectives is expected to grow by 7 percent from 2010 to 2020, slower than the average for all occupations. Continued demand for public safety will lead to new openings for officers in local departments; however, both state and federal jobs may be more competitive.

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Because they typically offer low salaries, many local departments face high turnover rates, making opportunities more plentiful for qualified applicants. However, some smaller departments may have fewer opportunities as budgets limit the ability to hire additional officers.

Jobs in state and federal agencies will remain more competitive as they often offer high pay and more opportunities for both promotions and inter-agency transfers. Bilingual applicants with a bachelor's degree and law enforcement or military experience, especially investigative experience, should have the best opportunities in federal agencies.

The level of government spending determines the level of employment for police and detectives. The number of job opportunities, therefore, can vary from year to year and from place to place. Layoffs are rare because retirements enable most staffing cuts to be handled through attrition. Trained law enforcement officers who lose their jobs because of budget cuts usually have little difficulty finding jobs with other agencies

Employment projections data for police and detectives, 2010-20						
Occupational Title	SOC Code	Employment, 2010	Projected Employment, 2020	Change, 2010-20		Employment by Industry
				Percent	Numeric	
SOURCE: U.S. Bureau of Labor Statistics, Employment Projections program						
Police and Detectives	—	794,300	853,100	7	58,700	—
Detectives and Criminal Investigators	33-3021	119,400	122,900	3	3,500	[XLS]
Fish and Game Wardens	33-3031	7,600	7,900	5	400	[XLS]
Police and Sheriff's Patrol Officers	33-3051	663,900	718,500	8	54,600	[XLS]
Transit and Railroad Police	33-3052	3,600	3,800	6	200	[XLS]

SOURCE: U.S. Bureau of Labor Statistics, Employment Projections program

Professional Associations:

North American Wildlife Enforcement Officers Association

<http://naweo.org/joomla15/>

Ontario Conservation Officers Association

<http://www.ocoa.ca/>

Ministry of Natural Resources – Enforcement

<http://www.mnr.gov.on.ca/en/Business/Enforcement/>

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Employment Requirements

Employment requirements are prerequisites generally needed to enter an occupation.

- Completion of a one- to three-year college program in renewable resources management is required.
- On-the-job training and courses related to law enforcement and resource management are provided.
- A class-5 driver's licence, pesticide applicator's licence and explosives licence may be required.

[Source: [National Occupational Classification 2006 - HRSDC](http://www.workingincanada.gc.ca/print_report-eng.do?noc=2224&area=8792)

http://www.workingincanada.gc.ca/print_report-eng.do?noc=2224&area=8792

Employment Requirements (From the MNR Enforcement Branch website)

How To Become a Conservation Officer



Firearms training



Educating the public

Key Research Findings



Patrolling interior lakes by canoe



Dedicated to the protection of our natural resource

Becoming a Conservation Officer requires education, training and dedication.

A new recruit would be expected to possess some knowledge and experience in the field of natural resources management and knowledge of the related legislation. Other desired qualities include excellent communication and interpersonal skills; analytical, investigative and intelligence gathering skills; the ability to work independently and proficiency in computer use, handling firearms, and hunting and fishing.

Approximately 250 students graduate from college programs in this field each year, making this an extremely competitive field of employment.

General Requirements

There are also several key criteria without which a candidate cannot be appointed, including:

- the ability to qualify as a Conservation/Peace Officer;
- possession of a valid driver's licence;
- the ability to complete use of force training and firearms certification;
- the ability to meet the physical demands of the position; and,

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- a willingness to work in remote locations, travel for extended periods of time, work shifts, weekends and holidays and perform your duties effectively despite inclement weather.

Educational Programs Leading to this Occupation

Education/Training (Information on the Broad category of Biological Technologists & Technician NOC 2221)

Completion of a three-year or equivalent program for biological technologists or a two-year or an equivalent program for biological technicians is usually required. Several different educational backgrounds can provide entrance to an occupation within this classification. Certification in biological technology or in a related field is available through provincial associations of engineering and applied science. In Ontario, the Ontario Association of Certified Engineering Technicians and Technologists (OACETT) certifies biological technologists and technicians. The certification process includes a period of supervised work experience, usually up to two years, and a professional practice examination.

http://www.tcu.gov.on.ca/eng/labourmarket/ojf/pdf/2221_e.pdf

Educational competitors

Fleming College – Post-diploma

<http://flemingcollege.ca/programs/conservation-and-environmental-law-enforcement>

Sault College – Post-diploma

<http://www.saultcollege.ca/Programs/Programs.asp?progcode=5006&cat=overview&groupcode=NRS#bd-header>

College	APS	APS Title	MTCU	MTCU Title	WT	FU	TF
SSFL	1098	Conservation and Environmental Law Enforcement	74200	Natural Resources - Law Enforcement	1.00	1.30	1.00

(Was not able to find the info for the Sault program)

Employment Postings:

NO jobs listed at this time

Checked:

Ontario government jobs

Government of Canada jobs

Canada job bank

Hotjobs.com

For the following:

Conservation officer

Park Warden

Game warden