

Greening the Economy



Transitioning
to **New**
Careers

ENVIRONMENT

**CAREER
PROFILES**

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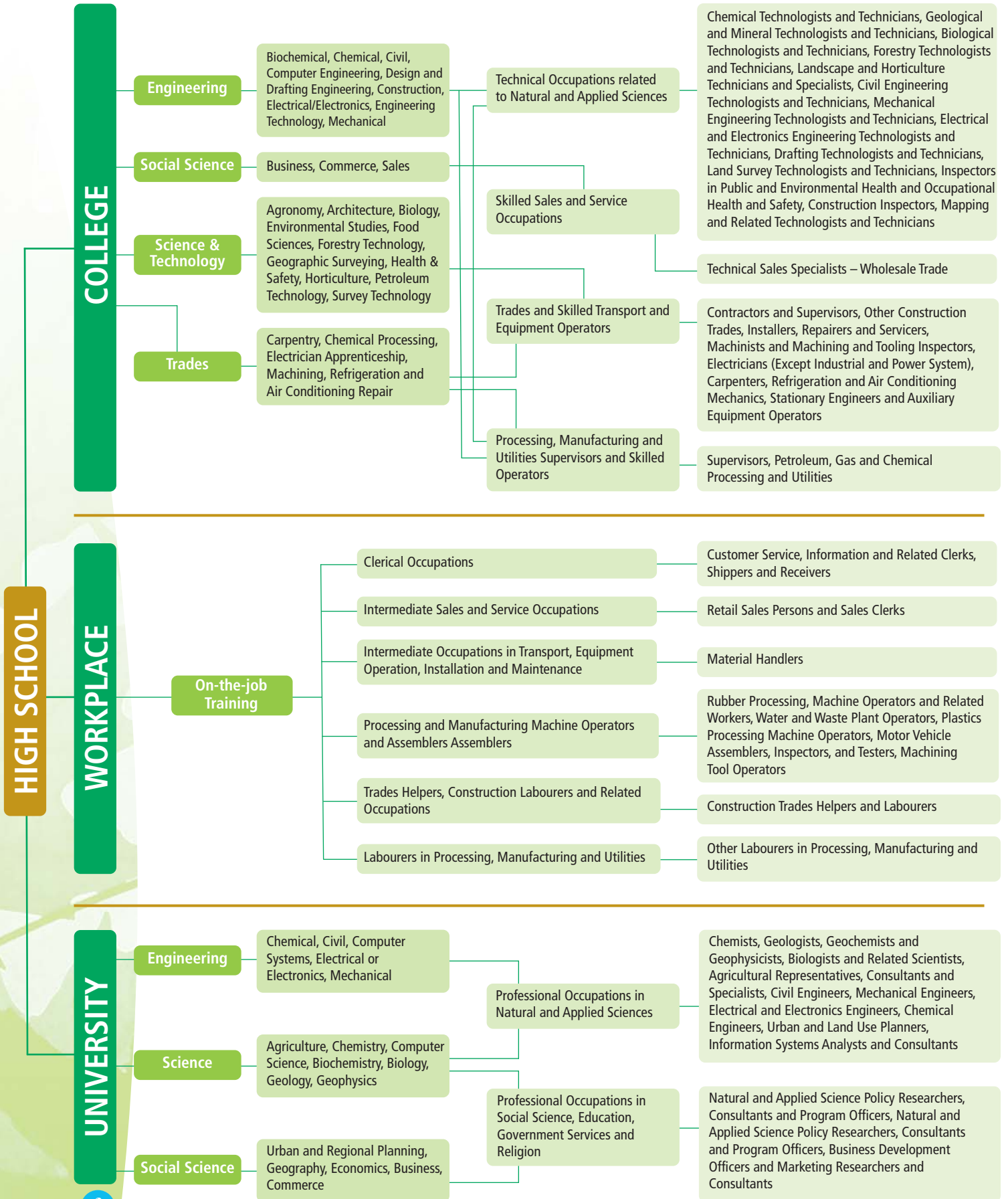
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Educational Flow Chart



Agrologist

NOC 2123

Agrologists or agricultural representatives, consultants and specialists, provide assistance and advice to farmers on all aspects of farm management, cultivation, fertilization, harvesting, soil erosion and composition, disease prevention, nutrition, crop rotation and marketing. By studying commercial and native plant communities and livestock production, they improve yields while at the same time advocating sustainable farming and ranching methods. Agrologists may also study farm, urban, and wilderness interfaces to find solutions to the challenge of competing demands on the land base, for example wildlife habitat, timber, recreation, urban expansion and livestock¹.

Places of Employment¹:

- Businesses, institutions and governments that assist the farming community
- Self employed

Employment Requirements¹:

- A bachelor's or master's degree in agriculture or in a related science discipline
- Membership or eligibility for membership in a provincial institute of agrology is usually required

Local Educational Programs:

Program	Length	Certification	Institutions
Botany	4 years	Bachelor of Science	University of Toronto
Ecosystem Management	4 years	Bachelor in Environmental Studies	York University
Horticultural Studies	N/A	Certificate	Sheridan College, Humber College
Urban Ecologies Certificate	1 years	Certificate in Urban Ecologies	York University
Urban Arboriculture-Tree Care	1 year	Certificate	Humber College

The most important Essential Skills for this occupation are²:

- Reading text
- Document use
- Oral communication

The most important High School subjects are³:

- Sciences
- English

Number of Employees by Age Range⁴:

Age Range	Peel Halton	Toronto	York Region Brad WG	Total
15 – 24 years	0	0	0	0
25 – 44 years	35	15	10	60
45 years and over	20	20	0	40
Total Employees	55	35	10	100
% 45 years +	36.36%	57.14%	0.00%	40.00%

Source: Statistics Canada, 2006 Census

Average Salary

Based on 2006 Census Data ⁴ :	
Peel Halton	\$ 54,050
Toronto	\$ 57,333
York Region Brad WG	No data
Ontario	\$ 59,524

Agrologist

NOC 2123

Top Industries of Employment for 3 regions^{4,5}:

Across all three regions, there are 100 agrologists employed. The top industries of employment are:

Industry (NAICS)	Number of People Employed	% of Total	Number of Employers Dec 2003	Number of Employers Jun 2009	Absolute Change % 03 - 09	Change 03 - 09
541 Professional, scientific & technical services	30	26.09%	76,758	77,367	609	0.79%
111-112 Farms	20	17.39%	1,706	1,443	-263	-15.42%
115 Support activities for agriculture & forestry	10	8.70%	347	288	-59	-17.00%
417 Machinery, equipment and supplies wholesaler-distributors	10	8.70%	6,146	5,567	-579	-9.42%
561 Administrative and support services	10	8.70%	20,942	19,811	1,131	-5.40%
813 Religious, grant-making, civic, and professional and similar organizations	10	8.70%	6,598	7,929	1,331	20.17%
911 Federal government public administration	10	8.70%	8	36	28	350.00%
912 Provincial & territorial public administration	10	8.70%	45	243	198	440.00%

Source: Statistics Canada, 2006 Census; Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009.

Matrix of Skills Transferability⁶:

Transferability between occupations has been analyzed using the National Occupational Coding system. Judgments have been made based on an analysis of available information regarding the overlap of knowledge and skills and labour market hiring practices for occupations. Occupations to which transferability exists are:

- Biological technologists and technicians (NOC 2221)

Local Employers:

The following list of employers was randomly selected as examples of companies employing this occupation. An attempt was made to represent a company from each local board area.

Yongda Meat Supply Co.
12 Golden Gate Court
Scarborough, Ontario M1P 3A5
Telephone: 1 416 321 5699
Fax: 1 416 321 5575
www.yongdameat.com

Earthco Soil Mixtures
401 Bowes Road
Concord, Ontario L4K 1J1
Telephone: 1 416 789 4749
Fax: 1 905 738 5228
www.earthcosoils.com

Vanhart Greenhouses
950 Woodchoppers Lane
Kettleby, Ontario L0G 1J0
Telephone: 1 905 775 7412
Fax: 1 905 775 4977
www.vanhartsallorganic.ca

For a more complete listing of potential employers please visit www.labourmarketinformation.ca.

ENDNOTES

¹Human Resources Skills Development Canada. National Occupational Classification System 2006. www5.hrsdc.gc.ca/NOC.

²Human Resources Skills Development Canada. Essential Skills Profiles. www.hrsdc.gc.ca/eng/workplaceskills/essential_skills/general/home.shtml

³Service Canada. Job Futures – National Edition. 2007. www.jobfutures.ca.

⁴Statistics Canada. 2006 Census. www.statcan.gc.ca.
Note: These salaries represent an average of both unionized and non-unionized workers. Salaries may vary by workplace.

⁵Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009. www.statcan.gc.ca.

⁶Human Resources Skills Development Canada. Matrix of Skills Transferability – January 2003. www.hrsdc.gc.ca.

Architecture and Science Managers

NOC 0212

Architecture and science managers plan, organize, direct, control and evaluate the activities of an architecture, landscape architecture, scientific or statistical department, service or firm.¹

Places of Employment¹:

- Private sector
- Government
- Architectural firms
- Scientific research companies

Employment Requirements¹:

- Architecture managers require a degree in architecture, registration as a professional architect and several years of experience as an architect
- Science and other managers require a master's or doctoral degree in a scientific discipline and several years of experience in a related scientific discipline
- Landscape architecture managers require a degree in landscape architecture, licensing as a professional landscape architect and several years of experience as a landscape architect

Local Educational Programs:

Program	Length	Certification	Institutions
Architectural Preservation and Conservation Certificate	N/A	Certificate in Architectural Preservation and Conservation	Ryerson University
Architectural Science	4 years	Bachelor of Architectural Science	Ryerson University
Architectural Technician/Technology	2 years (technician) 3 years (technology)	Diploma Advanced Diploma	Centennial College, George Brown College, Humber College, Sheridan College
Chemical Engineering Technology – Environmental	3 years	Advanced Diploma	Seneca College, Sheridan College
Chemistry	4 years	Bachelor of Science	University of Toronto
Environmental Biology	4 years	Bachelor of Science	University of Toronto
Environmental Chemistry	4 years	Bachelor of Science	University of Toronto
Environmental Landscape Management	2 years	Diploma	Seneca College
Environmental Science Program	4 years	Bachelor of Science	York University
Geography	4 years	Bachelor of Science	University of Toronto, York University
Landscape Technician Program	2 years	Diploma	Humber College
Landscape Design	N/A	Certificate	Humber College

The most important Essential Skills for this occupation are²:

- Numeracy
- Writing
- Oral communication
- Computer use

The most important High School subjects are³:

- Math
- Sciences
- Blueprint reading
- Drafting
- English

Number of Employees by Age Range⁴:

Employees by Age Range	Peel Halton	Toronto	York Region Brad WG	Total
15 – 24 years	0	0	0	0
25 – 44 years	200	335	75	610
45 years and over	245	325	140	710
Total Employees	450	670	215	1,320
% 45 years +	55.06%	49.24%	65.12%	53.79%

Source: Statistics Canada, 2006 Census

Average Salary

Average Salary based on 2006 Census Data ⁴	
Peel Halton	\$ 100,264
Toronto	\$ 82,964
York Region Brad WG	\$ 91,216
Ontario	\$ 87,979

Architecture and Science Managers

NOC 0212

Top Industries of Employment for 3 regions^{4,5}:

Across all three regions there are a total of 1,320 architecture and science managers employed. The top industries of employment are:

Industry (NAICS)	Number of People Employed	% of Total	Number of Employers Dec 2003	Number of Employers Jun 2009	Absolute Change % 03 - 09	Change 03 - 09
541 Professional, scientific & technical services	520	38.95%	76,758	77,367	609	0.79%
325 Chemical manufacturing	140	10.49%	881	690	-191	-21.68%
621 Ambulatory health care services	75	5.62%	11,287	13,965	2,678	23.73%
414 Personal and household goods wholesaler-distributors	65	4.87%	5,324	5,233	-91	-1.71%
622 Hospitals	65	4.87%	100	82	-18	-18.00%
912 Provincial & territorial public administration	55	4.12%	45	243	198	440.00%

Source: Statistics Canada, 2006 Census; Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009.

Additional Information¹:

- Progression to senior management positions in the respective fields is possible with experience

Matrix of Skills Transferability⁶:

Transferability between occupations has been analyzed using the National Occupational Coding system. Judgments have been made based on an analysis of available information regarding the overlap of knowledge and skills and labour market hiring practices for occupations.

There are no direct occupations linked to this occupation based on the matrix of skills transferability. However, the following have been identified as related occupations:

- Architects, Urban Planners and Land Surveyors (NOC 215)
- Civil, Mechanical, Electrical and Chemical Engineers (NOC 213)

Local Employers:

The following list of employers was randomly selected as examples of companies employing this occupation. An attempt was made to represent a company from each local board area.

ACI Wright Inc.
2171 Avenue Road, Suite 204
Toronto, Ontario M5M 4B4
Telephone: 416 322 2132
Fax: 416 850 4356
www.aciw.ca

Diamond + Schmitt Architects
384 Adelaide Street West, Suite 300
Toronto, Ontario M5V 1R7
Telephone: 416 862 8800
Fax: 416 862 5508
www.dsai.ca

Petroff Partnership Architects
260 Town Centre Blvd
Markham, Ontario L3R 8H8
Telephone: 905 470 7000
Fax: 905 470 7001
www.petroff.com

For a more complete listing of potential employers please visit www.labourmarketinformation.ca.

ENDNOTES

¹Human Resources Skills Development Canada. National Occupational Classification System 2006. www5.hrsdc.gc.ca/NOC.

²Human Resources Skills Development Canada. Essential Skills Profiles. www.hrsdc.gc.ca/eng/workplaceskills/essential_skills/general/home.shtml

³Service Canada. Job Futures – National Edition. 2007. www.jobfutures.ca.

⁴Statistics Canada. 2006 Census. www.statcan.gc.ca.
Note: These salaries represent an average of both unionized and non-unionized workers. Salaries may vary by workplace.

⁵Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009. www.statcan.gc.ca.

⁶Human Resources Skills Development Canada. Matrix of Skills Transferability – January 2003. www.hrsdc.gc.ca.

Biological Technologists and Technicians

NOC 2221

Biological technologists and technicians provide technical support and services to scientists, engineers and other professionals working in fields such as agriculture, resource management, environmental protection, plant and animal biology, microbiology, cell and molecular biology and health sciences, or may work independently in these fields. They set up, operate, and maintain laboratory equipment, monitor experiments, and record observations and results. In addition, biological technologists and technicians develop and adapt laboratory procedures and devise solutions under the direction of biologists.¹

Places of Employment¹:

- Governments
- Health, research and educational institutions
- Manufacturers of food products, chemicals and pharmaceuticals
- Environmental consulting companies
- Biotechnology companies
- Resource and utilities companies

Employment Requirements¹:

- Completion of a two- to three-year college program in a field related to agriculture, biology, microbiology, wildlife or resource management is usually required for employment as a biological technologist
- Completion of a one to two-year college program in a related field is required for employment as a biological technician
- Certification with provincial associations is available, but voluntary

Local Educational Programs:

Program	Length	Certification	Institutions
Biotechnology	4 years	Bachelor of Science	York University
Biotechnology Technician Industrial Microbiology Program	2 years	Diploma	Centennial College
Environment and Science	4 years	Bachelor of Science	University of Toronto
Environmental Biology	4 years	Bachelor of Science	University of Toronto

The most important Essential Skills for this occupation are²:

- Reading text
- Numeracy
- Writing

The most important High School subjects are³:

- Sciences
- Social studies
- Math
- English

Number of Employees by Age Range⁴:

Employees by Age Range	Peel Halton	Toronto	York Region Brad WG	Total
15 – 24 years	65	40	35	140
25 – 44 years	135	210	90	435
45 years and over	25	95	20	140
Total Employees	225	345	145	715
% 45 years +	11.11%	27.54%	13.79%	19.58%

Source: Statistics Canada, 2006 Census

Average Salary

Average Salary based on 2006 Census Data ⁴	
Peel Halton	\$ 42,947
Toronto	\$ 49,271
York Region Brad WG	\$ 48,475
Ontario	\$ 49,933

Biological Technologists and Technicians

NOC 2221

Top Industries of Employment for 3 regions^{4,5}:

Across all three regions there are 715 biological technologists and technicians employed. The top industries of employment are:

Industry (NAICS)	Number of People Employed	% of Total	Number of Employers Dec 2003	Number of Employers Jun 2009	Absolute Change % 03 - 09	Change 03 - 09
541 Professional, scientific & technical services	295	41.84%	76,758	77,367	609	0.79%
712 Heritage institutions	100	14.18%	110	91	-19	-17.27%
325 Chemical manufacturing	60	8.51%	881	690	-191	-21.68%

Source: Statistics Canada, 2006 Census; Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009.

Additional Information¹:

- There is limited mobility between occupations in this group
- Some technologists and technicians working in support of government and academic research in biology are university graduates

Matrix of Skills Transferability⁶:

Transferability between occupations has been analyzed using the National Occupational Coding system. Judgments have been made based on an analysis of available information regarding the overlap of knowledge and skills and labour market hiring practices for occupations. Occupations to which transferability exists are:

- Medical laboratory technicians (NOC 3212)

Local Employers:

The following list of employers was randomly selected as examples of companies employing this occupation. An attempt was made to represent a company from each local board area.

Florence Meat Supplies Ltd.

2136 Speers Road
Oakville, Ontario L6L 2X8
Telephone: 1 905 842 2066
Fax: 1905 842 2067
www.florencemeats.com

Thermography Clinic Inc.

3910 Bathurst St., Suite 202
Toronto, Ontario M3H 3N8
Telephone: 1 416 636 2916
Fax: 1 416 638 7553
www.thermographyclinic.com

Novopharm Ltd.

575 Hood Rd,
Markham, Ontario L3R 4E1
Telephone: 1 416 940 6777
Fax: 1 416 291 5555
www.novopharm.com

For a more complete listing of potential employers please visit www.labourmarketinformation.ca.

ENDNOTES

¹Human Resources Skills Development Canada. National Occupational Classification System 2006. www5.hrsdc.gc.ca/NOC.

²Human Resources Skills Development Canada. Essential Skills Profiles. www.hrsdc.gc.ca/eng/workplaceskills/essential_skills/general/home.shtml

³Service Canada. Job Futures – National Edition. 2007. www.jobfutures.ca.

⁴Statistics Canada. 2006 Census. www.statcan.gc.ca.
Note: These salaries represent an average of both unionized and non-unionized workers. Salaries may vary by workplace.

⁵Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009. www.statcan.gc.ca.

⁶Human Resources Skills Development Canada. Matrix of Skills Transferability – January 2003. www.hrsdc.gc.ca.

Chemical Engineer

NOC 2134

Chemical engineers research, design, and develop chemical processes and equipment, oversee the operation and maintenance of industrial chemical, plastics, pharmaceutical, resource, pulp, and food processing plants and perform duties related to chemical quality control, environmental protection and biochemical or biotechnical engineering¹.

Places of Employment¹:

- Manufacturing companies
- Processing industries
- Consulting firms
- Research and educational institutions
- Federal, provincial/territorial, and municipal government departments

Employment Requirements¹:

- A bachelor's degree in chemical engineering or in a related engineering discipline is required
- A master's degree or doctorate in a related engineering discipline may be required
- Licensing by a provincial or territorial association of professional engineers is required to approve engineering drawings and reports and to practise as a Professional Engineer (P.Eng.)
- Engineers are eligible for registration following graduation from an accredited educational program, and after three or four years of supervised work experience in engineering and passing a professional practice examination
- Supervisory and senior positions in this unit group require experience

Local Educational Programs:

Program	Length	Certification	Institutions
Biochemical Engineering	4 years	Bachelor's Degree	York University
Chemical Engineering	4 years	Bachelor's Degree	Ryerson University, University of Toronto, York University
Chemical Engineering Technology	3 years	Advanced Diploma	Durham College, Seneca College, Sheridan College
Environmental Chemistry	4 years	Bachelor's Degree	Trent University
Environmental Engineering	4 years	Bachelor's Degree	University of Toronto
Environmental Engineering Science Certificate	N/A	Certificate	Ryerson University
Environmental and Resource Studies	4 years	Degree	Trent University
Environmental Technician/Technology	2-3 years	Diploma/Advanced Diploma	Durham College, Georgian College, Seneca College
Environmental Techniques/Technology	2-3 years	Diploma/Advanced Diploma	Durham College, Georgian College
Materials Science Engineering	4 years	Bachelor's Degree	University of Toronto

The most important Essential Skills for this occupation are²:

- Numeracy
- Analytical Skills
- Problem solving

Chemical Engineer

NOC 2134

Number of Employees by Age Range³:

Age Range	Durham	Peel Halton	Simcoe Muskoka	Toronto	York Region BWG	Total
15 – 24 years	0	15	0	10	15	40
25 – 44 years	65	480	25	390	185	1145
45 years and over	65	290	20	305	135	815
Total Employees	130	785	45	705	335	2,000
% 45 years +	50.00%	36.94%	44.44%	43.26%	40.30%	40.75%

Source: Statistics Canada, 2006 Census

Average Salary

Based on 2006 Census Data³:

Durham	\$ 78,063
Peel Halton	\$ 78,943
Simcoe Muskoka	\$ 62,866
Toronto	\$ 73,130
York Region BWG	\$ 67,876
Ontario	\$ 79,542

Top Industries of Employment for 5 regions⁴:

Across all five regions, there are 2,000 Chemical Engineers employed. The top industries of employment are:

Industry (NAICS)	Number of People Employed	% of Total
541 Professional, scientific and technical services	820	41.00%
325 Chemical manufacturing	240	12.00%
326 Plastics and rubber products manufacturing	145	7.25%
221 Utilities	85	4.25%

Source: Statistics Canada, 2006 Census; Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009.

Matrix of Skills Transferability⁵:

Transferability between occupations has been analyzed using the National Occupational Coding system. Judgments have been made based on an analysis of available information regarding the overlap of knowledge and skills and labour market hiring practices for occupations. Occupations to which transferability exists are:

- Applied chemical technologists and technicians (NOC 2211)
- Metallurgical and materials engineers (NOC 2142)
- Drafting technologists and technicians (NOC 2253)

Local Employers:

The following list of employers was randomly selected as examples of companies employing this occupation. An attempt was made to represent a company from each local board area.

Blue-Zone Technologies Ltd.

14 - 84 Citation Drive
Concord, Ontario L4K 3C1
www.bluezone.ca

Husky Injection Molding Systems Ltd.

500 Queen St. South
Bolton, Ontario L7E 5S5
www.husky.ca

Oetiker Limited

203 Dufferin St. South, P.O. Box 5500
Alliston, Ontario L9R 1W7
www.oetiker.com

ENDNOTES

¹Human Resources Skills Development Canada. National Occupational Classification System 2006. www5.hrsdc.gc.ca/NOC.

²Human Resources Skills Development Canada. Essential Skills Profiles. www.hrsdc.gc.ca/eng/workplaceskills/essential_skills/general/home.shtml

³Statistics Canada. 2006 Census. www.statcan.gc.ca.

⁴Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009. www.statcan.gc.ca.

⁵Human Resources Skills Development Canada. Matrix of Skills Transferability – January 2003. www.hrsdc.gc.ca.

For a more complete listing of potential employers please visit www.labourmarketinformation.ca.

Chemical Technologists and Technicians

NOC 2211

Chemical technologists and technicians provide technical support and services or may work independently in chemical engineering, chemical and biochemical research and analysis, industrial chemistry, chemical quality control and environmental protection. They perform chemical sampling and analysis and are involved in a variety of projects, for example analytical testing, quality control protocols, and product research and development. Chemical technologists and technicians can specialize in a number of disciplines, including environmental testing, mining and exploration, pharmaceuticals, and hazardous waste.¹

Places of Employment¹:

- Research and development companies
- Quality control laboratories
- Engineering consulting companies
- Manufacturing and processing industries
- Utilities companies
- Educational institutions
- Government

Employment Requirements¹:

- Chemical technologists usually require completion of a two or three year college program in chemical, biochemical or chemical engineering technology or a closely related discipline
- Chemical technicians usually require completion of a one or two year college program in chemical, biochemical or chemical engineering technology
- National certification for chemical technologists and technicians is available through the Canadian Society for Chemical Technology
- Certification in chemical engineering technology or in a related field is available through provincial associations of engineering/applied science technologists and technicians and may be required by employers
- A period of supervised work experience, usually two years, is required before certification

Local Educational Programs:

Program	Length	Certification	Institutions
Chemical Engineering	4 years, 5 year Co-op	Bachelor of Engineering	Ryerson University, University of Toronto
Chemical Engineering Technology	3 years	Advanced Diploma	Seneca College, Sheridan College
Environmental Chemistry	4 years	Bachelor of Science	University of Toronto

The most important Essential Skills for this occupation are²:

- Reading text
- Document use
- Writing
- Computer use
- Numeracy
- Thinking skills

The most important High School subjects are³:

- Chemistry
- Computer-related courses
- Math
- English

Number of Employees by Age Range⁴:

Employees by Age Range	Peel Halton	Toronto	York Region Brad WG	Total
15 – 24 years	180	150	120	450
25 – 44 years	960	835	340	2,135
45 years and over	675	365	310	1,350
Total Employees	1,815	1,350	770	3,935
% 45 years +	37.19%	27.04%	40.26%	34.31%

Source: Statistics Canada, 2006 Census

Average Salary

Average Salary based on 2006 Census Data ⁴	
Peel Halton	\$ 52,382
Toronto	\$ 47,131
York Region Brad WG	\$ 56,583
Ontario	\$ 54,541

Chemical Technologists and Technicians

NOC 2211

Top Industries of Employment for 3 regions^{4,5}:

Across all three regions there are 3,935 chemical technologists and technicians employed. The top industries of employment are:

Industry (NAICS)	Number of People Employed	% of Total	Number of Employers Dec 2003	Number of Employers Jun 2009	Absolute Change % 03 - 09	Change 03 - 09
541 Professional, scientific and technical services	875	22.26%	76,758	77,367	609	0.79%
325 Chemical manufacturing	855	21.76%	881	690	-191	-21.68%
311 Food manufacturing	540	13.74%	1,599	1,335	-264	-16.51%

Source: Statistics Canada, 2006 Census; Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009.

Additional Information¹:

- Considerable mobility is possible among jobs within this occupational group
- Progression to managerial positions is possible with experience
- Some chemical technologists and technicians working in support of fundamental research in chemistry or biochemistry are university graduates

Matrix of Skills Transferability⁶:

Transferability between occupations has been analyzed using the National Occupational Coding system. Judgments have been made based on an analysis of available information regarding the overlap of knowledge and skills and labour market hiring practices for occupations. Occupations to which transferability exists are:

- Medical laboratory technicians (NOC 3212)

Local Employers:

The following list of employers was randomly selected as examples of companies employing this occupation. An attempt was made to represent a company from each local board area.

Virox Technologies Inc
2815 Bristol Circle, Unit 4
Oakville, Ontario L6H 6X5
Telephone: 1 905 813 0110
Fax: 1 905 813 0220
www.virox.com

Biochem Environmental Solutions Inc.
91 Milvan Drive, Unit 10,11
North York, Ontario M9L 1Z7
Telephone: 1 905 747 6600
Fax: 1 905 747 6622
www.biochemenvironmental.com

Riso Pharma Tech Inc.
110 West Beaver Creek, Unit 18
Richmond Hill, Ontario L4B 1J9
Telephone: 1 905 907 7174 ext. 228
Fax: 1 905 907 5195
www.risopharma.com

For a more complete listing of potential employers please visit www.labourmarketinformation.ca.

ENDNOTES

¹Human Resources Skills Development Canada. National Occupational Classification System 2006. www5.hrsdc.gc.ca/NOC.

²Human Resources Skills Development Canada. Essential Skills Profiles. www.hrsdc.gc.ca/eng/workplaceskills/essential_skills/general/home.shtml

³Service Canada. Job Futures – National Edition. 2007. www.jobfutures.ca.

⁴Statistics Canada. 2006 Census. www.statcan.gc.ca.
Note: These salaries represent an average of both unionized and non-unionized workers. Salaries may vary by workplace.

⁵Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009. www.statcan.gc.ca.

⁶Human Resources Skills Development Canada. Matrix of Skills Transferability – January 2003. www.hrsdc.gc.ca.

Director of Environment Health and Safety

NOC 2263

Environmental health and safety directors evaluate and monitor health and safety and environmental impact. They develop strategies for protecting public and employee health and safety and for improving sustainability. They also administer and enforce provincial legislation related to environmental health and provide the necessary support to minimize health and safety and environmental hazards. They inspect restaurants, public facilities, industrial establishments, municipal water systems and other workplaces to ensure compliance with government regulations regarding sanitation, pollution control, the handling and storage of hazardous substances and workplace safety. Environmental health officers are focused on prevention, consultation, investigation, and education of the community regarding health risks and maintaining a safe environment¹.

Places of Employment¹:

- National, provincial and municipal governments
- Hospitals
- Educational institutions
- Consulting firms
- Self-employed

Employment Requirements¹:

- A bachelor's degree or college diploma in a discipline such as food science, environmental studies, chemistry or health and safety is usually required
- In some establishments, several years of related work experience and the completion of in-house training courses may substitute for formal education
- Occupational health and safety officers may require certification with the Association for Canadian Registered Safety Professionals

Local Educational Programs:

Program	Length	Certification	Institutions
Environment & Health	4 years	Degree	University of Toronto
Environmental Public Health Leadership Certificate	N/A	Certificate	Ryerson University
Environmental and Health Studies	4 years	Degree	York University
Masters in Sustainability Studies	Masters Program	Masters	Trent University

The most important Essential Skills for this occupation are²:

- Oral communication
- Document use
- Problem solving
- Working with others

The most important High School subjects are³:

- Math
- Mechanics
- Physics
- Chemistry
- Biology

Number of Employees by Age Range⁴:

Age Range	Durham	Peel Halton	Simcoe Muskoka	Toronto	York Region BWG	Total
15 – 24 years	30	30	15	45	25	145
25 – 44 years	170	630	105	515	135	1,555
45 years and over	175	395	75	330	145	1,120
Total Employees	375	1,055	195	890	305	2,820
% 45 years +	46.67%	37.44%	38.46%	37.08%	47.54%	39.72%

Source: Statistics Canada, 2006 Census

Average Salary

Based on 2006 Census Data⁴:

Durham	\$ 71,682
Peel Halton	\$ 60,312
Simcoe Muskoka	\$ 53,264
Toronto	\$ 64,807
York Region BWG	\$ 76,330
Ontario	\$ 65,066

Director of Environment Health and Safety

NOC 2263

Top Industries of Employment for 5 regions^{4,5}:

Across all five regions, there are 2,820 Environment, Health and Safety Directors employed. The top industries of employment are:

Industry (NAICS)	Number of People Employed	% of Total
913 Local, municipal and regional public administration	495	17.55%
912 Provincial and territorial public administration	470	16.67%
541 Professional, scientific and technical services	260	9.22%
221 Utilities	145	5.14%

Source: Statistics Canada, 2006 Census; Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009.

Matrix of Skills Transferability⁶:

Transferability between occupations has been analyzed using the National Occupational Coding system. Judgments have been made based on an analysis of available information regarding the overlap of knowledge and skills and labour market hiring practices for occupations. Occupations to which transferability exists are:

There are no direct occupations linked to this occupation based on the matrix of skills transferability. However, the following have been identified as related occupations:

- Natural and Applied Science Policy Researchers, Consultants and Program Officers (NOC 2262)
- Engineering Inspectors and Regulatory Officers (NOC 2262)

Local Employers:

The following list of employers was randomly selected as examples of companies employing this occupation. An attempt was made to represent a company from each local board area.

The Town of Oakville
1225 Trafalgar Road, P.O. Box 310
Oakville, Ontario L6J 5A6
www.oakville.ca

Husky Injection Molding Systems Ltd.
500 Queen St. South
Bolton, Ontario L7E 5S5
www.husky.ca

Oetiker Limited
203 Dufferin St. South, P.O. Box 5500
Alliston, Ontario L9R 1W7
www.oetiker.com

For a more complete listing of potential employers please visit www.labourmarketinformation.ca.

ENDNOTES

¹Human Resources Skills Development Canada. National Occupational Classification System 2006. www5.hrsdc.gc.ca/NOC.

²Human Resources Skills Development Canada. Essential Skills Profiles.

www.hrsdc.gc.ca/eng/workplaceskills/essential_skills/general/home.shtml

³Service Canada. Job Futures – National Edition. 2007. www.jobfutures.ca.

⁴Statistics Canada. 2006 Census. www.statcan.gc.ca.

⁵Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009. www.statcan.gc.ca.

⁶Human Resources Skills Development Canada. Matrix of Skills Transferability – January 2003. www.hrsdc.gc.ca.

Environmental Biologist

NOC 2121

Environmental biologists and related scientists conduct basic and applied research to extend knowledge of living organisms, to manage natural resources, and to develop new practices and products related to medicine and agriculture. They may focus on how to protect and restore biodiversity and how to minimize human impacts on the natural world.¹

Places of Employment¹:

- Government
- Environmental consulting companies
- Resource and utility companies
- Chemical, pharmaceutical and biotechnical companies
- Health and educational institutions

Employment Requirements¹:

- A bachelor's degree in biology or in a related discipline is required for biologists
- A master's or doctoral degree in biology or a related discipline is required for employment as a research scientist in biology
- Post-doctoral research experience is usually required before employment in academic departments or research institutions

Local Educational Programs:

Program	Length	Certification	Institutions
Environment and Science	4 years	Bachelor of Science	University of Toronto
Environmental Biology	4 years	Bachelor of Science	University of Toronto

The most important Essential Skills for this occupation are²:

- Reading text
- Writing
- Document use
- Numeracy
- Thinking skills

The most important High School subjects are³:

- English
- Math
- Biology
- Chemistry
- Physics

Number of Employees by Age Range⁴:

Employees by Age Range	Peel Halton	Toronto	York Region Brad WG	Total
15 – 24 years	40	75	15	130
25 – 44 years	420	680	170	1,270
45 years and over	190	280	100	570
Total Employees	650	1,035	285	1,970
% 45 years +	29.23%	27.05%	35.09%	28.93%

Source: Statistics Canada, 2006 Census

Average Salary

Average Salary based on 2006 Census Data ⁴	
Peel Halton	\$ 64,689
Toronto	\$ 64,644
York Region Brad WG	\$ 64,702
Ontario	\$ 65,007

Environmental Biologist

NOC 2121

Top Industries of Employment for 3 regions^{4,5}:

Across all three regions there are 1,970 environmental biologists employed.

The top industries of employment are:

Industry (NAICS)	Number of People Employed	% of Total	Number of Employers Dec 2003	Number of Employers Jun 2009	Absolute Change % 03 - 09	Change 03 - 09
541 Professional, scientific and technical services	585	29.77%	76,758	77,367	609	0.79%
622 Hospitals	390	19.85%	100	82	-18	-18.00%
325 Chemical manufacturing	150	7.63%	881	690	-191	-21.68%
912 Provincial and territorial public administration	145	7.38%	45	243	198	440.00%

Source: Statistics Canada, 2006 Census; Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009.

Matrix of Skills Transferability⁶:

Transferability between occupations has been analyzed using the National Occupational Coding system. Judgments have been made based on an analysis of available information regarding the overlap of knowledge and skills and labour market hiring practices for occupations. Occupations to which transferability exists are:

- Biological technologists and technicians (2221)
- Medical laboratory technologists and pathologists' assistants (3211)
- Medical laboratory technicians (3212)

Local Employers:

The following list of employers was randomly selected as examples of companies employing this occupation. An attempt was made to represent a company from each local board area.

Nir Technologies Inc

1312 Fairmeadow Trail
Oakville, Ontario L6M 2M2
Telephone: 1 905 469 6767
www.nirtechnologies.com

Biochem Environmental Solutions Inc.

91 Milvan Drive, Unit 10,11
North York, Ontario M9L 1Z7
Telephone: 1 905 747 6600
Fax: 1 905 747 6622
www.biochemenvironmental.com

Pontarolo Engineering

231 Millway Ave., Unit 16
Concord, Ontario L4K 3W7
Telephone: 1 905 669 8190
Fax: 1 905 669 6354
www.pontarolo.com

For a more complete listing of potential employers please visit www.labourmarketinformation.ca.

ENDNOTES

¹Human Resources Skills Development Canada. National Occupational Classification System 2006. www5.hrsdc.gc.ca/NOC.

²Human Resources Skills Development Canada. Essential Skills Profiles. www.hrsdc.gc.ca/eng/workplaceskills/essential_skills/general/home.shtml

³Service Canada. Job Futures – National Edition. 2007. www.jobfutures.ca.

⁴Statistics Canada. 2006 Census. www.statcan.gc.ca.
Note: These salaries represent an average of both unionized and non-unionized workers. Salaries may vary by workplace.

⁵Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009. www.statcan.gc.ca.

⁶Human Resources Skills Development Canada. Matrix of Skills Transferability – January 2003. www.hrsdc.gc.ca.

Environmental Chemical Engineer

NOC 2134

Chemical engineers research, design, and develop chemical processes and equipment, oversee the operation and maintenance of industrial chemical, plastics, pharmaceutical, resource, pulp, and food processing plants and perform duties related to chemical quality control, and biochemical or biotechnical engineering. Environmental chemical engineers also study how chemicals enter the environment and what effects they have. They are often involved in promoting environmental sustainability, conservation, and protection, as well as in formulating regulations to protect the environment.¹

Places of Employment¹:

- Manufacturing and process industries
- Consulting firms
- Government
- Research and educational institutions

Employment Requirements¹:

- A bachelor's degree in chemical engineering or in a related engineering discipline is required
- A master's degree or doctorate in a related engineering discipline may be required
- Licensing by a provincial or territorial association of professional engineers is required to approve engineering drawings and reports and to practice as a Professional Engineer (P.Eng.)
- Engineers are eligible for registration following graduation from an accredited educational program, and after three or four years of supervised work experience in engineering and passing a professional practice examination
- Supervisory and senior positions in this unit group require experience

Local Educational Programs:

Program	Length	Certification	Institutions
Chemical Engineering	4 years, 5 year Co-op	Bachelor of Engineering	Ryerson University, University of Toronto,
Environmental Chemistry	4 years	Bachelor of Science	University of Toronto
Environmental Engineering Science Certificate	N/A	Certificate in Environmental Engineering Science	Ryerson University

The most important Essential Skills for this occupation are²:

- Reading text
- Writing text
- Document use
- Numeracy

The most important High School subjects are³:

- Math
- Sciences
- English

Number of Employees by Age Range⁴:

Employees by Age Range	Peel Halton	Toronto	York Region Brad WG	Total
15 – 24 years	25	10	0	35
25 – 44 years	460	440	175	1,075
45 years and over	290	320	145	755
Total Employees	775	770	320	1,865
% 45 years +	37.42%	41.56%	45.31%	40.48%

Source: Statistics Canada, 2006 Census

Average Salary

Average Salary based on 2006 Census Data ⁴	
Peel Halton	\$ 78,943
Toronto	\$ 73,130
York Region Brad WG	\$ 67,876
Ontario	\$ 81,868

Environmental Chemical Engineer

NOC 2134

Top Industries of Employment for 3 regions^{4,5}:

Across all three regions there are 1,865 chemical engineers employed.

The top industries of employment are:

Industry (NAICS)	Number of People Employed	% of Total	Number of Employers Dec 2003	Number of Employers Jun 2009	Absolute Change % 03 - 09	Change 03 - 09
541 Professional, scientific and technical services	745	39.84%	76,758	77,367	609	0.79%
325 Chemical manufacturing	240	12.83%	881	690	-191	-21.68%
326 Plastics and rubber products manufacturing	125	6.68%	955	785	-170	-17.80%

Source: Statistics Canada, 2006 Census; Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009.

Matrix of Skills Transferability⁶:

Transferability between occupations has been analyzed using the National Occupational Coding system. Judgments have been made based on an analysis of available information regarding the overlap of knowledge and skills and labour market hiring practices for occupations. Occupations to which transferability exists are:

- Chemical technologists and technicians (2211)
- Metallurgical and materials engineers (2142)
- Drafting technologists and technicians (2253)

Local Employers:

The following list of employers was randomly selected as examples of companies employing this occupation. An attempt was made to represent a company from each local board area.

Nycomed

435 North Service Rd. West, 1st Floor
Oakville, Ontario L6M 4X8
Telephone: 1 905 469 9333
Fax: 1 905 469 4883
www.nycomed.com

Biochem Environmental Solutions Inc.

91 Milvan Drive, Unit 10,11
North York, Ontario M9L 1Z7
Telephone: 1 905 747 6600
Fax: 1 905 747 6622
www.biochemenvironmental.com

Jaapharm Canada Inc.

510 Rowntree Dairy Road, Unit # 4
Woodbridge, Ontario L4L 8H2
Telephone: 1 905 851 7885
Fax: 1 905 856 5838
www.jaapharm.com

For a more complete listing of potential employers please visit www.labourmarketinformation.ca.

ENDNOTES

¹Human Resources Skills Development Canada. National Occupational Classification System 2006. www5.hrsdc.gc.ca/NOC.

²Human Resources Skills Development Canada. Essential Skills Profiles. www.hrsdc.gc.ca/eng/workplaceskills/essential_skills/general/home.shtml

³Service Canada. Job Futures – National Edition. 2007. www.jobfutures.ca.

⁴Statistics Canada. 2006 Census. www.statcan.gc.ca. Note: These salaries represent an average of both unionized and non-unionized workers. Salaries may vary by workplace.

⁵Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009. www.statcan.gc.ca.

⁶Human Resources Skills Development Canada. Matrix of Skills Transferability – January 2003. www.hrsdc.gc.ca.

Environmental Chemists

NOC 2112

Environmental chemists conduct research and analysis in support of industrial operations, product and process development, quality control, environmental control, medical diagnosis and treatment, biotechnology and other applications. They also conduct theoretical, experimental and applied research into basic chemical and biochemical processes to create or synthesize new products and processes.¹

Places of Employment¹:

- Research, development and quality control laboratories
- Chemical, petrochemical and pharmaceutical industries
- Mineral, metal and pulp and paper industries
- Manufacturing companies
- Utility companies
- Educational institutions
- Government

Employment Requirements¹:

- A bachelor's degree in chemistry, biochemistry or a related discipline is required
- A master's or doctoral degree is usually required for employment as a research chemist
- Licensing by a provincial association of chemists is compulsory in Quebec, and available but voluntary in Ontario and Alberta

Local Educational Programs:

Program	Length	Certification	Institutions
Chemistry	4 years	Bachelor of Science	University of Toronto
Environmental Chemistry	4 years	Bachelor of Science	University of Toronto
Environment and Science	4 years	Bachelor of Science	University of Toronto

The most important Essential Skills for this occupation are²:

- Reading text
- Writing
- Document use
- Computer use
- Numeracy
- Thinking skills

The most important High School subjects are³:

- Chemistry
- Physics
- Math
- English

Number of Employees by Age Range⁴:

Employees by Age Range	Peel Halton	Toronto	York Region Brad WG	Total
15 – 24 years	40	35	15	90
25 – 44 years	1,070	1,465	565	3,100
45 years and over	585	730	295	1,610
Total Employees	1,695	2,230	875	4,800
% 45 years +	34.51%	43.07%	17.40%	94.99%

Source: Statistics Canada, 2006 Census

Average Salary

Average Salary	based on 2006 Census Data ⁴
Peel Halton	\$ 62,291
Toronto	\$ 64,156
York Region Brad WG	\$ 65,620
Ontario	\$ 64,363

Environmental Chemists

NOC 2112

Top Industries of Employment for 3 regions^{4,5}:

Across all three regions there are 4,800 environmental chemists employed.

The top industries of employment are:

Industry (NAICS)	Number of People Employed	% of Total	Number of Employers Dec 2003	Number of Employers Jun 2009	Absolute Change % 03 - 09	Change 03 - 09
325 Chemical manufacturing	2,060	42.87%	881	690	-191	-21.68%
541 Professional, scientific and technical services	1,275	26.53%	76,758	77,367	609	0.79%
414 Personal and household goods wholesaler-distributors	315	6.56%	5,324	5,233	-91	-1.71%

Source: Statistics Canada, 2006 Census; Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009.

Additional Information¹:

- Mobility between occupations in this group is possible with experience
- Mobility is possible to occupations concerned with plant management, technical sales and the development and management of regulatory programs and teaching professions

Matrix of Skills Transferability⁶:

Transferability between occupations has been analyzed using the National Occupational Coding system. Judgments have been made based on an analysis of available information regarding the overlap of knowledge and skills and labour market hiring practices for occupations. Occupations to which transferability exists are:

- Chemical technologists and technicians (2211)
- Geological and mineral technologists and technicians (2212)
- Medical laboratory technologists and pathologists' assistants (3211)
- Medical laboratory technicians (3212)

Local Employers:

The following list of employers was randomly selected as examples of companies employing this occupation. An attempt was made to represent a company from each local board area.

Progressive Industrial Fluids Ltd.

2050 Elmgrove Road
Oakville, Ontario L6M 4Y5
Telephone: 1 905 334 5245
Fax: 1 905 677 2272
www.progressivefluids.com

Casco Inc.

405 The West Mall, Suite 600
Etobicoke, Ontario M9C 0A1
Telephone: 1 416 620 2300
Fax: 1 416 620 4488
www.casco.ca

Riso Pharma Tech Inc.

110 West Beaver Creek, Unit 18
Richmond Hill, Ontario L4B 1J9
Telephone: 1 905 907 7174 ext. 228
Fax: 1 905 907 5195
www.risopharma.com

For a more complete listing of potential employers please visit www.labourmarketinformation.ca.

ENDNOTES

¹Human Resources Skills Development Canada. National Occupational Classification System 2006. www5.hrsdc.gc.ca/NOC.

²Human Resources Skills Development Canada. Essential Skills Profiles. www.hrsdc.gc.ca/eng/workplaceskills/essential_skills/general/home.shtml

³Service Canada. Job Futures – National Edition. 2007. www.jobfutures.ca.

⁴Statistics Canada. 2006 Census. www.statcan.gc.ca.
Note: These salaries represent an average of both unionized and non-unionized workers. Salaries may vary by workplace.

⁵Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009. www.statcan.gc.ca.

⁶Human Resources Skills Development Canada. Matrix of Skills Transferability – January 2003. www.hrsdc.gc.ca.

Environmental Economists, Policy Researchers and Analysts

NOC 4162

Environmental economists, policy researchers and analysts conduct research, monitor data, analyze information and prepare reports and plans to resolve economic and business problems and develop models to analyze, explain and forecast economic behaviour and patterns. They specialize in incorporating environmental implications into economic analysis and studying the environmental impacts of projects and policies from an economic perspective. In turn they advise industry and government on the environmental impacts of decisions. Environmental economists, policy researchers and analysts may also be involved in developing theories that model the economic value of the environment and how it interacts with all aspects of the economy.¹

Places of Employment¹:

- Government departments
- Various agencies throughout the private sector
- Unions
- Research organizations
- Banks and investment firms

Employment Requirements¹:

- A master's degree in economics or in a related discipline such as business administration or statistics is usually required
- A doctorate in economics may be required

Local Educational Programs:

Program	Length	Certification	Institutions
Business	3 years	Advanced Diploma	Centennial College, George Brown College, Humber College, Seneca College, Sheridan College
Business Administration	4 years	Bachelor of Business	Ryerson University, University of Toronto, York University
Certificate in Sustainability	N/A	Certificate in Sustainability (CKSS)	Ryerson University
Environmental Policy and Practice	4 years	Bachelor of Arts	University of Toronto
Environmental Studies Program	4 years	Bachelor of Environmental Studies Degree	York University
Innis Environmental Studies Programs	4 years	Bachelor of Arts Degree/ Bachelor of Science	University of Toronto

The most important Essential Skills for this occupation are²:

- Reading text
- Writing
- Document use
- Computer use
- Thinking skills

The most important High School subjects are³:

- English
- Sciences
- Business
- Math

Number of Employees by Age Range⁴:

Employees by Age Range	Peel Halton	Toronto	York Region Brad WG	Total
15 – 24 years	10	50	45	105
25 – 44 years	175	580	50	805
45 years and over	125	340	65	530
Total Employees	310	970	160	1,440
% 45 years +	40.32%	35.05%	40.63%	36.81%

Source: Statistics Canada, 2006 Census

Average Salary

Average Salary based on 2006 Census Data ⁴	
Peel Halton	\$ 98,245
Toronto	\$ 80,925
York Region Brad WG	\$ 55,989
Ontario	\$ 83,008

Environmental Economists, Policy Researchers and Analysts

NOC 4162

Top Industries of Employment for 3 regions^{4,5}:

Across all three regions there are 1,440 environmental economists, policy researchers and analysts employed. The top industries of employment are:

Industry (NAICS)	Number of People Employed	% of Total	Number of Employers Dec 2003	Number of Employers Jun 2009	Absolute Change % 03 - 09	Change 03 - 09
912 Provincial and territorial public administration	415	28.82%	45	243	198	440.00%
541 Professional, scientific and technical services	295	20.49%	76,758	77,367	609	0.79%
522 Credit intermediation and related activities	205	14.24%	4,745	4,119	-626	-13.19%

Source: Statistics Canada, 2006 Census; Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009.

Additional Information¹:

- Progression to managerial positions in economics is possible with experience

Matrix of Skills Transferability⁶:

Transferability between occupations has been analyzed using the National Occupational Coding system. Judgments have been made based on an analysis of available information regarding the overlap of knowledge and skills and labour market hiring practices for occupations. Occupations to which transferability exists are:

- Financial and investment analysts (1112)
- Securities agents, investment dealers and brokers (1113)
- Economic development officers and marketing researchers and consultants (4163)

Local Employers:

The following list of employers was randomly selected as examples of companies employing this occupation. An attempt was made to represent a company from each local board area.

Corporation of the Town of Oakville

1225 Trafalgar Road, P.O Box 310
Oakville, Ontario L6J 5A6
Telephone: 1 905 845 6601
Fax: 1 905 815 2001
www.oakville.ca

Ministry of Economic Development and Trade

1201 Wilson Ave., C-Suite 314
Toronto, Ontario M3M 1J8
Telephone: 1 416 235 4286
Fax: 1 416 235 4338
www.ontario-canada.com

South Lake Community Futures Development Corporation

183 The Queensway South
Keswick, Ontario L4P 2A3
Telephone: 1 905 476 1244
Fax: 1 905 476 9978
www.southlakecfdc.org

For a more complete listing of potential employers please visit www.labourmarketinformation.ca.

ENDNOTES

¹Human Resources Skills Development Canada. National Occupational Classification System 2006. www5.hrsdc.gc.ca/NOC.

²Human Resources Skills Development Canada. Essential Skills Profiles. www.hrsdc.gc.ca/eng/workplaceskills/essential_skills/general/home.shtml

³Service Canada. Job Futures – National Edition. 2007. www.jobfutures.ca.

⁴Statistics Canada. 2006 Census. www.statcan.gc.ca.
Note: These salaries represent an average of both unionized and non-unionized workers. Salaries may vary by workplace.

⁵Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009. www.statcan.gc.ca.

⁶Human Resources Skills Development Canada. Matrix of Skills Transferability – January 2003. www.hrsdc.gc.ca.

Environmental Engineer

NOC 2131

Environmental engineers plan, design, develop and manage projects for the construction or repair of buildings, earth structures, powerhouses, roads, airports, railways, rapid transit facilities, bridges, tunnels, canals and dams, systems related to highway and transportation services, water distribution systems, sanitation systems and more. Environmental engineers are also often involved in regulatory procedures that review facilities to ensure they are complying with environmental policies and guidelines. They may also specialize in a specific area such as solid and hazardous waste management, air or water quality, foundation analysis, building and structural inspection, surveying, geomatics and municipal planning¹.

Places of Employment¹:

- Environmental engineering consulting firms
- Federal, provincial/territorial, and municipal government departments
- Colleges, universities, and research institutes
- Property management companies
- Industrial companies
- Self-employed

Employment Requirements¹:

- A bachelor's degree in civil, environmental or chemical engineering or in a related engineering discipline
- A master's degree or doctorate in a related engineering discipline may be required
- Licensing by a provincial or territorial association of professional engineers is required to approve engineering drawings and reports and to practice as a Professional Engineer (P.Eng.)
- Engineers are eligible for registration following graduation from an accredited educational program, and after three or four years of supervised work experience in engineering and passing a professional practice examination

Local Educational Programs:

Program	Length	Certification	Institutions
Civil Engineering	4 years	Bachelor's Degree	Ryerson University, University of Toronto
Civil Engineering Technician/Technology	2 – 3 years	Diploma/ Advanced Diploma	Durham College, George Brown College, Georgian College, Humber College, Seneca College
Environmental Engineering	4 years	Bachelor's Degree	University of Toronto
Environmental Engineering Science Certificate	N/A	Certificate	Ryerson University
Environmental and Resource Studies	4 years	Degree	Trent University
Environmental Technician/Technology	2-3 years	Diploma/Advanced Diploma	Durham College, Georgian College
Environmental Techniques/Technology	2-3 years	Diploma/Advanced Diploma	Durham College, Georgian College
Geomatics Engineering	4 years	Bachelor's Degree	York University
Industrial Engineering	4 years	Bachelor's Degree	Ryerson University, University of Toronto
Masters in Sustainability Studies	Masters Program	Masters	Trent University
Mechanical Engineering Technician/Technology	2 years	Diploma	Centennial College, Durham College, George Brown College, Georgian College, Seneca, Sheridan

The most important Essential Skills for this occupation are²:

- Document use
- Numeracy
- Computer use

The most important High School subjects are³:

- Mathematics
- Physics
- Chemistry
- Calculus
- Biology

Environmental Engineer

NOC 2131

Number of Employees by Age Range³:

Age Range	Durham	Peel Halton	Simcoe Muskoka	Toronto	York Region BWG	Total
15 – 24 years	15	70	0	120	55	260
25 – 44 years	175	1,115	210	1,785	860	4,145
45 years and over	130	1,065	160	1,500	805	3,660
Total Employees	320	2,250	370	3,405	1,720	8,065
% 45 years +	40.63%	47.33%	43.24%	44.05%	46.80%	45.38%

Source: Statistics Canada, 2006 Census

Average Salary

Based on 2006 Census Data⁴:

Durham	\$ 84,242
Peel Halton	\$ 67,048
Simcoe Muskoka	\$ 72,140
Toronto	\$ 62,402
York Region BWG	\$ 75,241
Ontario	\$ 77,262

Top Industries of Employment for 5 regions^{4,5}:

Across all five regions, there are 8,065 Environmental Engineers employed. The top industries of employment are:

Industry (NAICS)	Number of People Employed	% of Total
541 Professional, scientific and technical services	4,435	54.99%
236 Construction of buildings	830	10.31%
913 Local, municipal and regional public administration	510	6.34%
237 Heavy and civil engineering construction	340	4.22%
912 Provincial and territorial public administration	290	3.60%

Source: Statistics Canada, 2006 Census; Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009.

Matrix of Skills Transferability⁶:

Transferability between occupations has been analyzed using the National Occupational Coding system. Judgments have been made based on an analysis of available information regarding the overlap of knowledge and skills and labour market hiring practices for occupations. Occupations to which transferability exists are:

- Land Surveyors (NOC 2154)
- Civil Engineering Technologists and Technicians (NOC 2231)
- Mechanical Engineering Technologists and Technicians (NOC 2232)
- Industrial Engineering and Manufacturing Technologists and Technicians (NOC 2233)
- Construction Estimators (NOC 2234)
- Architectural Technologists and Technicians (NOC 2251)
- Drafting Technologists and Technicians (NOC 2253)
- Land Survey Technologists and Technicians (NOC 2254)

Local Employers:

The following list of employers was randomly selected as examples of companies employing this occupation. An attempt was made to represent a company from each local board area.

Fifth Light Technology
1155 North Service Rd. West, Unit #7
Oakville, ON., L6M 3E3
www.fifthlight.com

Husky Injection Molding Systems Ltd.
500 Queen St. South
Bolton, Ontario L7E 5S5
www.husky.ca

Solarsheat - Your Solar Home Inc.
270 Industrial Parkway S.
Aurora, Ontario L4G 3T9
www.yoursolarhome.com

For a more complete listing of potential employers please visit
www.labourmarketinformation.ca.

ENDNOTES

¹Human Resources Skills Development Canada. National Occupational Classification System 2006. www5.hrsdc.gc.ca/NOC.

²Human Resources Skills Development Canada. Essential Skills Profiles. www.hrsdc.gc.ca/eng/workplaceskills/essential_skills/general/home.shtml.

³Service Canada. Job Futures – National Edition. 2007. www.jobfutures.ca.

⁴Statistics Canada. 2006 Census. www.statcan.gc.ca.

⁵Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009. www.statcan.gc.ca.

⁶Human Resources Skills Development Canada. Matrix of Skills Transferability – January 2003. www.hrsdc.gc.ca.

Environmental Engineering Managers

NOC 0211

Environmental engineering managers plan, organize, direct, control and evaluate the activities of an engineering department, service or firm. They work to ensure that all applicable legislative requirements are fulfilled. They are also involved in activities such as environmental awareness projects, sustainable development, fundraising, and public consultation programs. Environmental engineering managers also manage and oversee the work of others and may be involved in training personnel on environmental issues. They require a broad understanding of environmental issues combined with expertise and a lot of experience in project development and management.¹

Places of Employment¹:

- Governments
- Engineering firms

Employment Requirements¹:

- A bachelor's degree in engineering or a college diploma in engineering technology
- Extensive experience in an engineering discipline, including supervisory experience
- Registration as a Professional Engineer (P. Eng.) by a provincial or territorial association of professional engineers or certification as an engineering technologist (CET) is usually required

Local Educational Programs:

Program	Length	Certification	Institutions
Biomedical Engineering Technology	3 years	Advanced Diploma	Centennial College
Chemical Engineering	4 years, 5 year Co-op	Bachelor of Engineering	Ryerson University, University of Toronto, Seneca College, Sheridan College
Civil Engineering	4 years, 5 year Industrial Internship Program	Bachelor of Engineering	Ryerson University, University of Toronto
Civil Engineering Technology	3 years	Advanced Diploma	George Brown College
Construction Engineering Technician/Technology	2 years (technician) 3 years (technology)	Diploma Advanced Diploma (3 yrs)	George Brown College
Electrical Engineering	4 years, 5 year Industrial Internship Program	Bachelor of Engineering	Ryerson University
Electronics Engineering Technician/Technology	2 years (technician) 3 years (technology)	Diploma Advanced Diploma (3 yrs)	Centennial College, George Brown College, Humber College, Seneca College, Sheridan College
Energy Systems Engineering Technician/Technology	2 years (technician) 3 years (technology)	Diploma Advanced Diploma(3 yrs)	Centennial College
Environmental Engineering Science Certificate	N/A	Certificate in Environmental Engineering Science	Ryerson University
Environmental Systems Engineering	3 years	Advanced Diploma	Humber College
Industrial Engineering	4 years, 5 year Industrial Internship Program	Bachelor of Engineering	Ryerson University
Mechanical Engineering	4 years, 5 year Industrial Internship Program	Bachelor of Engineering	Ryerson University
Mechanical Engineering	2 years (technician) 3 years (technology)	Diploma Advanced Diploma(3 yrs)	Centennial College, George Brown College, Sheridan College

The most important Essential Skills for this occupation are²:

- Reading text
- Computer use
- Writing

The most important High School subjects are³:

- Math
- Sciences

Number of Employees by Age Range⁴:

Employees by Age Range	Peel Halton	Toronto	York Region Brad WG	Total
15 – 24 years	0	15	10	25
25 – 44 years	685	590	515	1,790
45 years and over	790	600	540	1,930
Total Employees	1,475	1,205	1,065	3,745
% 45 years +	53.56%	49.79%	50.70%	51.54%

Source: Statistics Canada, 2006 Census

Average Salary

Average Salary	based on 2006 Census Data ⁴
Peel Halton	\$ 119,213
Toronto	\$ 119,106
York Region Brad WG	\$ 120,214
Ontario	\$ 116,455

Environmental Engineering Managers

NOC 0211

Top Industries of Employment for 3 regions^{4,5}:

Across all three regions there are a total of 3,745 environmental engineering managers employed. The top industries of employment are:

Industry (NAICS)	Number of People Employed	% of Total	Number of Employers Dec 2003	Number of Employers Jun 2009	Absolute Change % 03 - 09	Change 03 - 09
541 Professional, scientific and technical services	1,015	27.10%	76,758	77,367	609	0.79%
336 Transportation equipment manufacturing	470	12.55%	646	566	-80	-12.38%
334 Computer and electronic product manufacturing	265	7.08%	1,074	874	-200	-18.62%
333 Machinery manufacturing	190	5.07%	2,035	1,828	-207	-10.17%

Source: Statistics Canada, 2006 Census; Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009.

Additional Information¹:

- Mobility to other technical managerial positions or to research or senior management positions is possible with experience

Matrix of Skills Transferability⁶:

Transferability between occupations has been analyzed using the National Occupational Coding system. Judgments have been made based on an analysis of available information regarding the overlap of knowledge and skills and labour market hiring practices for occupations. Occupations to which transferability exists are:

There are no direct occupations linked to this occupation based on the matrix of skills transferability. However, the following have been identified as related occupations:

- Civil, Mechanical, Electrical and Chemical Engineers (NOC 213)
- Architects, Urban Planners and Land Surveyors (NOC 215)

Local Employers:

The following list of employers was randomly selected as examples of companies employing this occupation. An attempt was made to represent a company from each local board area.

SPG Engineering Group Ltd.

34 Rebecca Street
Oakville, Ontario L6K 1J1
Telephone: 1 905 338 6662
Fax: 1 905 338 9932
www.spg-eng.com

Vanbetlehem Architect Inc.

1440 Hurontario Street, Suite 201
Mississauga, Ontario L5G 3H4
Telephone: 1 905 274 2444
Fax: 1 905 274 2448
www.vanbetlehem.com

M-Tech Engineering & Management Services Inc.

334 Waterside Cres.
Maple, Ontario L6A 1V4
Telephone: 1 905 417 1899
Fax: 1 416 259 3616
www.mtechinc.ca

For a more complete listing of potential employers please visit www.labourmarketinformation.ca.

ENDNOTES

¹Human Resources Skills Development Canada. National Occupational Classification System 2006. www5.hrsdc.gc.ca/NOC.

²Human Resources Skills Development Canada. Essential Skills Profiles. www.hrsdc.gc.ca/eng/workplaceskills/essential_skills/general/home.shtml

³Service Canada. Job Futures – National Edition. 2007. www.jobfutures.ca.

⁴Statistics Canada. 2006 Census. www.statcan.gc.ca.
Note: These salaries represent an average of both unionized and non-unionized workers. Salaries may vary by workplace.

⁵Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009. www.statcan.gc.ca.

⁶Human Resources Skills Development Canada. Matrix of Skills Transferability – January 2003. www.hrsdc.gc.ca.

Environmental Geologist

NOC 2113

Environmental geologists, geochemists and geophysicists conduct programs of exploration and research to extend knowledge of the structure, composition and processes of the earth, to locate and identify hydrocarbon, mineral and groundwater resources and to plan and implement programs of hydrocarbon and mineral extraction. Environmental geologists also examine the effects of urban and industrial development and waste disposal projects on the environment and are vital to finding successful strategies for minimizing the negative effects of growth.¹

Places of Employment¹:

- Petroleum and mining companies
- Consulting geology, geophysics and engineering firms
- Governments
- Educational institutions
- Self employed

Employment Requirements¹:

- A university degree in geology, geochemistry, geophysics or a related discipline is required
- A master's or doctoral degree in geophysics, physics, mathematics or engineering may be required for employment as a geophysicist
- Registration as a professional geologist or professional geophysicist by a provincial or territorial association of professional engineers or geologists and geophysicists may be required

Local Educational Programs:

Program	Length	Certification	Institutions
Earth Systems: Physics & the Environment	4 years	Bachelor of Science	University of Toronto
Environmental Geosciences	4 years	Bachelor of Science	University of Toronto
Environmental Science Program	4 years	Bachelor of Science	York University
Geology	4 years	Bachelor of Science	University of Toronto

The most important Essential Skills for this occupation are²:

- Document use
- Numeracy
- Computer use

The most important High School subjects are³:

- Chemistry
- Physics
- Math
- English

Number of Employees by Age Range⁴:

Employees by Age Range	Peel Halton	Toronto	York Region Brad WG	Total
15 – 24 years	0	0	0	0
25 – 44 years	95	125	30	250
45 years and over	190	165	75	430
Total Employees	285	290	105	680
% 45 years +	66.67%	56.90%	71.43%	63.24%

Source: Statistics Canada, 2006 Census

Average Salary

Average Salary based on 2006 Census Data ⁴	
Peel Halton	\$ 134,171
Toronto	\$ 78,071
York Region Brad WG	\$ 105,817
Ontario	\$ 86,287

Environmental Geologist

NOC 2113

Top Industries of Employment for 3 regions^{4,5}:

Across all three regions there are 680 environmental geologists employed.

The top industries of employment are:

Industry (NAICS)	Number of People Employed	% of Total	Number of Employers Dec 2003	Number of Employers Jun 2009	Absolute Change % 03 - 09	Change 03 - 09
541 Professional, scientific and technical services	380	55.88%	76,758	77,367	609	0.79%
213 Support activities for mining and oil and gas extraction	105	15.44%	341	338	-3	-0.88%
212 Mining (except oil and gas)	95	13.97%	70	76	6	8.57%

Source: Statistics Canada, 2006 Census; Statistics Canada, Canadian Business Patterns Data, December 2003, June 2009.

Matrix of Skills Transferability⁶:

Transferability between occupations has been analyzed using the National Occupational Coding system. Judgments have been made based on an analysis of available information regarding the overlap of knowledge and skills and labour market hiring practices for occupations. Occupations to which transferability exists are:

- Geological and mineral technologists and technicians (2212)

Local Employers:

The following list of employers was randomly selected as examples of companies employing this occupation. An attempt was made to represent a company from each local board area.

Dillon Consulting

1155 North Service Road West, Unit 14
Oakville, Ontario L6M 3E3
Telephone: 1 905 901 2912
Fax: 1 905 901 2918
www.dillon.ca

Toronto and Region Conservation

5 Shoreham Drive
Downsview, Ontario M3N 1S4
Telephone: 1 416 661 6600
Fax: 1 416 661 6898
www.trca.on.ca

Altech Environmental Consulting Ltd.

12 Banigan Drive,
Toronto, Ontario, M4H 1E9
Telephone: 1 416 467 5555
Fax: 1 416 467 9824
www.altech-group.com

For a more complete listing of potential employers please visit www.labourmarketinformation.ca.

ENDNOTES

¹Human Resources Skills Development Canada. National Occupational Classification System 2006. www5.hrsdc.gc.ca/NOC.

²Human Resources Skills Development Canada. Essential Skills Profiles. www.hrsdc.gc.ca/eng/workplaceskills/essential_skills/general/home.shtml

³Service Canada. Job Futures – National Edition. 2007. www.jobfutures.ca.

⁴Statistics Canada. 2006 Census. www.statcan.gc.ca.
Note: These salaries represent an average of both unionized and non-unionized workers. Salaries may vary by workplace.

⁵Statistics Canada. Canadian Business Patterns Data, December 2003, June 2009. www.statcan.gc.ca.

⁶Human Resources Skills Development Canada. Matrix of Skills Transferability – January 2003. www.hrsdc.gc.ca.

Environmental Health Officer

NOC 2263

Environmental health officers evaluate and monitor health and safety and develop strategies for protecting public health. They administer and enforce provincial legislation related to environmental health and provide support to minimize health and safety hazards. They inspect restaurants, public facilities, industrial establishments, municipal water systems and other workplaces to ensure compliance with government regulations regarding sanitation, pollution control, the handling and storage of hazardous substances and workplace safety. Environmental health officers are focused on prevention, consultation, investigation, and education of the community regarding health risks and maintaining a safe environment.¹

Places of Employment¹:

- National, provincial and municipal governments
- Hospitals
- Educational institutions
- Consulting firms
- Self employed

Employment Requirements¹:

- A bachelor's degree or college diploma in a discipline such as food science, environmental studies, chemistry or health and safety is usually required
- In some establishments, several years of related work experience and the completion of in-house training courses may substitute for formal education
- Public health inspectors employed outside Quebec require certification with the Canadian Institute of Public Health Inspectors
- Occupational health and safety officers may require certification with the Association for Canadian Registered Safety Professionals

Local Educational Programs:

Program	Length	Certification	Institutions
Environment & Health	4 years	Bachelor of Science	University of Toronto
Environmental Public Health Leadership Certificate	N/A	Certificate in Environmental Public Health Leadership	Ryerson University
Environmental and Health Studies	4 years	Bachelor of Arts	York University

The most important Essential Skills for this occupation are²:

- Oral communication
- Document use
- Problem solving
- Working with others

The most important High School subjects are³:

- Math
- Chemistry
- Physics
- Biology
- Mechanics

Number of Employees by Age Range⁴:

Employees by Age Range	Peel Halton	Toronto	York Region Brad WG	Total
15 – 24 years	30	45	25	100
25 – 44 years	630	515	135	1,280
45 years and over	395	330	145	870
Total Employees	1,055	890	305	2,250
% 45 years +	37.44%	37.08%	47.54%	38.67%

Source: Statistics Canada, 2006 Census

Average Salary

Average Salary based on 2006 Census Data ⁴	
Peel Halton	\$ 60,312
Toronto	\$ 64,807
York Region Brad WG	\$ 76,330
Ontario	\$ 65,066

Environmental Health Officer

NOC 2263

Top Industries of Employment for 3 regions^{4,5}:

Across all three regions there are 2,250 environmental health officers employed.
The top industries of employment are:

Industry (NAICS)	Number of People Employed	% of Total	Number of Employers Dec 2003	Number of Employers Jun 2009	Absolute Change % 03 - 09	Change 03 - 09
913 Local, municipal and regional public administration	405	17.84%	35	56	21	60.00%
912 Provincial and territorial public administration	300	13.22%	45	243	198	440.00%
541 Professional, scientific and technical services	210	9.25%	76,758	77,367	609	0.79%
911 Federal government public administration	100	4.41%	8	36	28	350.00%

Source: Statistics Canada, 2006 Census; Statistics Canada, Canadian Business Patterns Data, December 2003, June 2009.

Matrix of Skills Transferability⁶:

Transferability between occupations has been analyzed using the National Occupational Coding system. Judgments have been made based on an analysis of available information regarding the overlap of knowledge and skills and labour market hiring practices for occupations. Occupations to which transferability exists are:

There are no direct occupations linked to this occupation based on the matrix of skills transferability. However, the following have been identified as related occupations:

- Medical Technologists and Technicians (Except Dental) (NOC 321)
- Aircraft Mechanics and Aircraft Inspectors (NOC 7315)

Local Employers:

The following list of employers was randomly selected as examples of companies employing this occupation. An attempt was made to represent a company from each local board area.

The Town of Oakville

1225 Trafalgar Road, P.O. Box 310
Oakville, Ontario L6J 5A6
Telephone: 1 905 845 6601
Fax: 905 815 2001
www.oakville.ca

City of Vaughn

2141 Major Mackenzie Dr.
Maple, Ontario L6A 1T1
Telephone: 1 905 832 8585 Ext: 8521
Fax: 1 905 832 6248
www.vaughan.ca

For a more complete listing of potential employers please visit www.labourmarketinformation.ca.

ENDNOTES

¹Human Resources Skills Development Canada. National Occupational Classification System 2006. www5.hrsdc.gc.ca/NOC.

²Human Resources Skills Development Canada. Essential Skills Profiles. www.hrsdc.gc.ca/eng/workplaceskills/essential_skills/general/home.shtml

³Service Canada. Job Futures – National Edition. 2007. www.jobfutures.ca.

⁴Statistics Canada. 2006 Census. www.statcan.gc.ca.
Note: These salaries represent an average of both unionized and non-unionized workers. Salaries may vary by workplace.

⁵Statistics Canada. Canadian Business Patterns Data, December 2003, June 2009. www.statcan.gc.ca.

⁶Human Resources Skills Development Canada. Matrix of Skills Transferability – January 2003. www.hrsdc.gc.ca.

Environmental Technician/Technologist

NOC 2231

Environmental technicians and technologists provide technical support and services to scientists, engineers and other professionals, or may work independently in fields such as structural engineering, municipal engineering, construction design and supervision, highways and transportation engineering, water resources engineering, geotechnical engineering and environmental protection. They mainly work to prevent, control, and eliminate environmental hazards by inspecting, testing, decontaminating, and operating equipment used to control and remediate environmental pollution. Environmental technicians and technologists also monitor compliance with environmental regulations regarding asbestos, lead, waste-water, and other substances.¹

Places of Employment¹:

- Consulting companies
- Engineering companies
- Construction companies
- Public works, transportation departments and other government

Employment Requirements¹:

- Completion of a two- or three-year college program in civil engineering technology or a closely related discipline is usually required for civil engineering technologists
- Completion of a one- or two-year college program in civil engineering technology is usually required for civil engineering technicians
- Certification in civil engineering technology or in a related field is available through provincial associations of engineering/applied science technologists and technicians and may be required for some positions
- A period of supervised work experience, usually two years, is required before certification

Local Educational Programs:

Program	Length	Certification	Institutions
Civil Engineering	4 years, 5 year Industrial Internship Program	Bachelor of Engineering	Ryerson University, University of Toronto
Civil Engineering Technology	3 years	Advanced Diploma	George Brown College, Humber College, Seneca College
Environmental Engineering	4 years	Bachelor of Engineering	University of Toronto
Environmental Engineering Science Certificate	N/A	Certificate in Environmental Engineering Science	Ryerson University
Energy Systems Engineering Technician/Technology	2 years (technician) 3 years (technology)	Diploma/Advanced Diploma (3 yrs)	Centennial College
Environmental Technician/Technology	2 years (technician) 3 years (technology)	Diploma Advanced Diploma	Seneca College

The most important Essential Skills for this occupation are²:

- Document use
- Numeracy
- Computer use

The most important High School subjects are³:

- Math
- Physics
- Chemistry
- Drafting
- Blueprint Reading

Number of Employees by Age Range⁴:

Employees by Age Range	Peel Halton	Toronto	York Region Brad WG	Total
15 – 24 years	75	90	100	265
25 – 44 years	155	320	55	530
45 years and over	135	115	90	340
Total Employees	365	525	245	1135
% 45 years +	36.99%	21.90%	36.73%	29.96%

Source: Statistics Canada, 2006 Census

Average Salary

Average Salary	based on 2006 Census Data ⁴
Peel Halton	\$ 59,776
Toronto	\$ 53,633
York Region Brad WG	\$ 58,707
Ontario	\$56,294

Environmental Technician/Technologist

NOC 2231

Top Industries of Employment for 3 regions^{4,5}:

Across all three regions there are a total of 1,135 environmental technicians and technologists employed. The top industries of employment are:

Industry (NAICS)	Number of People Employed	% of Total	Number of Employers Dec 2003	Number of Employers Jun 2009	Absolute Change % 03 - 09	Change 03 - 09
541 Professional, scientific and technical services	530	46.70%	76,758	77,367	609	0.79%
913 Local, municipal and regional public administration	190	16.74%	35	56	21	60.00%
236 Construction of buildings	80	7.05%	13,667	13,829	162	1.19%
238 Specialty trade contractors	35	3.08%	23,111	24,416	1,305	5.65%
322 Paper manufacturing	35	3.08%	363	279	-84	-23.14%
912 Provincial and territorial public administration	35	3.08%	45	243	198	440.00%

Source: Statistics Canada, 2006 Census; Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009.

Additional Information¹:

- There is mobility to related occupations, such as drafting technologists and technicians and construction inspectors and estimators
- Progression to construction supervisors or construction managers is possible with experience

Matrix of Skills Transferability⁶:

Transferability between occupations has been analyzed using the National Occupational Coding system. Judgments have been made based on an analysis of available information regarding the overlap of knowledge and skills and labour market hiring practices for occupations. Occupations to which transferability exists are:

- Civil engineering technologists and technicians (2231)
- Mechanical engineering technologists and technicians (2232)
- Industrial engineering and manufacturing technologists and technicians (2233)
- Drafting technologists and technicians (2253)
- Land survey technologists and technicians (2254)

Local Employers:

The following list of employers was randomly selected as examples of companies employing this occupation. An attempt was made to represent a company from each local board area.

Arjay Engineering Ltd.

2851 Brighton Rd., Oakville, Ontario L6H 6C9

Telephone: 1 905 829 2418

Fax: 1 905 829 4701

www.arjayeng.com

ARCO Engineering Inc.

173 Benjamin Boake Trail, Toronto, Ontario M3J 3C9

Telephone: 1 416 635 1321

Fax: 1 416 635 2978

www.arcoengineering.ca

Wardrop

15-250 Shields Court, Markham, Ontario L3R 9W7

Telephone: 1 905 470 6570

Fax: 1 905 470 0958

www.wardrop.com

For a more complete listing of potential employers please visit www.labourmarketinformation.ca.

ENDNOTES

¹Human Resources Skills Development Canada. National Occupational Classification System 2006. www5.hrsdc.gc.ca/NOC.

²Human Resources Skills Development Canada. Essential Skills Profiles. www.hrsdc.gc.ca/eng/workplaceskills/essential_skills/general/home.shtml

³Service Canada. Job Futures – National Edition. 2007. www.jobfutures.ca.

⁴Statistics Canada. 2006 Census. www.statcan.gc.ca. Note: These salaries represent an average of both unionized and non-unionized workers. Salaries may vary by workplace.

⁵Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009. www.statcan.gc.ca.

⁶Human Resources Skills Development Canada. Matrix of Skills Transferability – January 2003. www.hrsdc.gc.ca.

Forestry Technologists and Technicians

NOC 2223

Forestry technologists and technicians may work independently or perform technical and supervisory functions in support of forestry research, forest management, forest harvesting, forest resource conservation and environmental protection.¹

Places of Employment¹:

- Forest industry companies
- Consulting firms
- Provincial and federal governments
- Self employed

Employment Requirements¹:

- Completion of a one- to three-year college program in forestry technology or in a renewable resource program or forest ranger program is usually required
- Certification by, or registration with, a provincial association as a forestry technologist or technician may be required
- Certification or licensing as a scaler is required for some positions

Local Educational Programs:

Program	Length	Certification	Institutions
Arborist	N/A	Apprenticeship	Humber College
Botany	4 years	Bachelor of Science	University of Toronto
Certificate in Sustainability		Certificate in Sustainability (CKSS)	Ryerson University
Conservation Ecology	4 years	Bachelor of Science	York University
Ecosystem Management	4 years	Bachelor in Environmental Studies	York University
Forest Biomaterials Science	4 years	Bachelor of Science	University of Toronto
Forest Conservation Science	4 years	Bachelor of Science	University of Toronto
Horticultural Science	N/A	Certificate	Humber College, Sheridan College
Landscape Technician Program	2 years	Diploma	Humber College
Urban Arboriculture-Tree Care	1 year	Certificate	Humber College

The most important Essential Skills for this occupation are²:

- Reading text
- Writing
- Document use
- Numeracy

The most important High School subjects are³:

- Sciences
- Math
- English

Number of Employees by Age Range⁴:

Employees by Age Range	Peel Halton	Toronto	York Region Brad WG	Total
15 – 24 years	0	0	10	10
25 – 44 years	10	30	10	50
45 years and over	0	0	15	15
Total Employees	10	30	35	75
% 45 years +	0.00%	0.00%	42.85%	0.20%

Source: Statistics Canada, 2006 Census

Average Salary

Average Salary based on 2006 Census Data ⁴	
Peel Halton	No data
Toronto	No data
York Region Brad WG	No data
Ontario	\$ 52,028

Forestry Technologists and Technicians

NOC 2223

Top Industries of Employment for 3 regions^{4,5}:

Across all three regions there are 75 forestry technologists and technicians employed. The top industries of employment are:

Industry (NAICS)	Number of People Employed	% of Total	Number of Employers Dec 2003	Number of Employers Jun 2009	Absolute Change % 03 - 09	Change 03 - 09
913 Local, municipal and regional public administration	20	26.67%	35	56	21	60.00%
221 Utilities	15	20.00%	180	281	101	56.11%

Source: Statistics Canada, 2006 Census; Statistics Canada, Canadian Business Patterns Data, December 2003, June 2009.

Additional Information¹:

- Mobility may be possible to occupations in natural resource and wildlife management and in parks management

Local Employers:

The following list of employers was randomly selected as examples of companies employing this occupation. An attempt was made to represent a company from each local board area.

Hall Tree Farms Inc.

16725 Jane Street
Kettleby, Ontario L0G 1J0
Telephone: 1 905 727 1996
Fax: 1 905 841 6117
www.halltreefarms.com

Cold Creek Forest and Wildlife Area

7785-17th Sideroad
Schomberg, Ontario L0G 1T0
Telephone: 1 905 859 4749
Fax: 1 416 667 6275
www.coldcreek.org

For a more complete listing of potential employers please visit www.labourmarketinformation.ca.

ENDNOTES

¹Human Resources Skills Development Canada. National Occupational Classification System 2006. www5.hrsdc.gc.ca/NOC.

²Human Resources Skills Development Canada. Essential Skills Profiles. www.hrsdc.gc.ca/eng/workplaceskills/essential_skills/general/home.shtml

³Service Canada. Job Futures – National Edition. 2007. www.jobfutures.ca.

⁴Statistics Canada. 2006 Census. www.statcan.gc.ca.
Note: These salaries represent an average of both unionized and non-unionized workers. Salaries may vary by workplace.

⁵Statistics Canada. Canadian Business Patterns Data, December 2003, June 2009. www.statcan.gc.ca.

⁶Human Resources Skills Development Canada. Matrix of Skills Transferability – January 2003. www.hrsdc.gc.ca.

Geological and Mineral Technologists and Technicians

NOC 2212

Geological and mineral technologists and technicians provide technical support and services or may work independently in the fields of oil and gas exploration and production, geophysics, petroleum engineering, geology, mining and mining engineering, mineralogy, extractive and physical metallurgy, metallurgical engineering and environmental protection.¹

Places of Employment¹:

- Government
- Educational institutions
- Research and development and quality control laboratories
- Engineering/geological consulting firms
- Petroleum/mining companies
- Chemical, petrochemical, pharmaceutical, and other manufacturing/processing industries
- Utilities companies

Employment Requirements¹:

- Geological and mineral technologists usually require completion of a two- to three-year college program in geological technology, petroleum technology, petroleum engineering technology, hydrogeology or groundwater technology, mining technology, mining engineering technology, mineralogy, metallurgical technology, or welding technology
- Geophysics technologists usually require completion of a two- to three-year college program in electronics technology
- Geological and mineral technicians usually require completion of a one- to two-year college program in a related field
- Certification in geological and mineral technology or in a related field is available through provincial associations of engineering/applied science technologists and technicians and may be required by some employers
- A period of supervised work experience, usually two years, is required before certification

Local Educational Programs:

Program	Length	Certification	Institutions
Geology	4 years	Bachelor of Science	University of Toronto

The most important Essential Skills for this occupation are²:

- Document use
- Numeracy
- Computer use

The most important High School subjects are³:

- Sciences
- Math
- Computer-related courses
- English

Number of Employees by Age Range⁴:

Employees by Age Range	Peel Halton	Toronto	York Region Brad WG	Total
15 – 24 years	30	15	10	55
25 – 44 years	85	45	30	160
45 years and over	95	120	45	260
Total Employees	210	180	85	475
% 45 years +	45.24%	66.67%	52.94%	54.74%

Source: Statistics Canada, 2006 Census

Average Salary

Average Salary based on 2006 Census Data ⁴	
Peel Halton	\$ 55,600
Toronto	\$ 50,614
York Region Brad WG	\$ 51,135
Ontario	\$ 58,738

Geological and Mineral Technologists and Technicians

NOC 2212

Top Industries of Employment for 3 regions^{4,5}:

Across all three regions there are a total of 475 geological and mineral technologists and technicians employed. The top industries of employment are:

Industry (NAICS)	Number of People Employed	% of Total	Number of Employers Dec 2003	Number of Employers Jun 2009	Absolute Change % 03 - 09	Change 03 - 09
541 Professional, scientific and technical services	250	51.02%	76,758	77,367	609	0.79%
213 Support activities for mining and oil and gas extraction	45	9.18%	341	338	-3	-0.88%
212 Mining (except oil and gas)	35	7.14%	70	76	6	8.57%

Source: Statistics Canada, 2006 Census; Statistics Canada, Canadian Business Patterns Data, December 2003, June 2009.

Additional Information¹:

- There is limited mobility between occupations in this group
- Mobility may be possible between geophysical technology and electronic technology
- Mobility may be possible between some occupations in this group and related fields of civil engineering technology

Matrix of Skills Transferability⁶:

Transferability between occupations has been analyzed using the National Occupational Coding system. Judgments have been made based on an analysis of available information regarding the overlap of knowledge and skills and labour market hiring practices for occupations. Occupations to which transferability exists are:

There are no direct occupations linked to this occupation based on the matrix of skills transferability. However, the following have been identified as related occupations:

- Chemical Technologists and Technicians (NOC 2211)
- Physical Science Professionals (NOC 211)
- Medical Laboratory Technologists and Pathologists' Assistants (NOC 3211)
- Medical Laboratory Technicians (NOC 3212)
- Supervisors, Processing Occupations (NOC 921)

Local Employers:

The following list of employers was randomly selected as examples of companies employing this occupation. An attempt was made to represent a company from each local board area.

Zarpac Inc.

1185 North Service Road East, Oakville, Ontario L6H 1A7
Telephone: 1 905 338 8880
Fax: 1 905 338 3521
www.zarpac.com

Martech Group Inc.

50 Paxman Road, Unit #18, Etobicoke, Ontario M9C 1B7
Telephone: 1 416 291 4663
Fax: 1 888 284 8253
www.martechgroup.ca

LGI Consulting Engineers Inc

588 Edward Avenue, Unit 49, Richmond Hill, Ontario L4C 9Y6
Telephone: 1 905 884 0911
Fax: 1 905 884 0790
www.lgiengineers.com

For a more complete listing of potential employers please visit www.labourmarketinformation.ca.

ENDNOTES

¹Human Resources Skills Development Canada. National Occupational Classification System 2006. www5.hrsdc.gc.ca/NOC.

²Human Resources Skills Development Canada. Essential Skills Profiles. www.hrsdc.gc.ca/eng/workplaceskills/essential_skills/general/home.shtml

³Service Canada. Job Futures – National Edition. 2007. www.jobfutures.ca.

⁴Statistics Canada. 2006 Census. www.statcan.gc.ca.
Note: These salaries represent an average of both unionized and non-unionized workers. Salaries may vary by workplace.

⁵Statistics Canada. Canadian Business Patterns Data, December 2003, June 2009. www.statcan.gc.ca.

⁶Human Resources Skills Development Canada. Matrix of Skills Transferability – January 2003. www.hrsdc.gc.ca.

Landscape and Horticulture Technicians and Specialists

NOC 2225

Landscape and horticulture technicians and specialists survey and assess landscapes; draw sketches and build models of landscape designs; construct and maintain gardens, parks, golf courses and other landscaped environments; advise clients on issues related to horticulture; breed, cultivate and study plants; and treat injured and diseased trees and plants.¹

Places of Employment¹:

- Landscape designers and contractors
- Lawn service and tree care establishments
- Golf courses
- Nurseries and greenhouses
- Municipal, provincial and national parks
- Self employed

Employment Requirements¹:

- Completion of a university or college program in agronomy, arboriculture, horticulture, landscaping, landscape design or landscape technology is usually required
- Experience as a landscape and grounds maintenance labourer may be required for golf course superintendents, landscape gardeners and landscapers
- An apprenticeship program is available for horticulturists, arboriculturists and landscape gardeners
- A provincial licence to apply chemical fertilizers, fungicides, herbicides and pesticides may be required

Local Educational Programs:

Program	Length	Certification	Institutions
Botany	4 years	Bachelor of Science	University of Toronto
Ecosystem Management	4 years	Bachelor in Environmental Studies	York University
Landscape Design	N/A	Certificate	Humber College
Landscape Technician Program	2 years	Diploma	Humber College
Horticultural Studies	N/A	Certificate	Sheridan College, Humber College
Urban Ecologies Certificate	1 years	Certificate in Urban Ecologies	York University
Urban Arboriculture-Tree Care	1 year	Certificate	Humber College

The most important Essential Skills for this occupation are²:

- Reading text
- Writing
- Document use
- Oral communication
- Thinking skills

The most important High School subjects are³:

- Sciences
- Math
- English

Number of Employees by Age Range⁴:

Employees by Age Range	Peel Halton	Toronto	York Region Brad WG	Total
15 – 24 years	65	60	70	195
25 – 44 years	295	310	245	850
45 years and over	120	225	55	400
Total Employees	480	595	370	1,445
% 45 years +	25.00%	37.82%	14.86%	27.68%

Source: Statistics Canada, 2006 Census

Average Salary

Average Salary based on 2006 Census Data ⁴	
Peel Halton	\$ 51,040
Toronto	\$ 45,588
York Region Brad WG	\$ 42,182
Ontario	\$ 43,693

Landscape and Horticulture Technicians and Specialists

NOC 2225

Top Industries of Employment for 3 regions^{4,5}:

Across all three regions there are 1,445 landscape and horticulture technologists and technicians employed. The top industries of employment are:

Industry (NAICS)	Number of People Employed	% of Total	Number of Employers Dec 2003	Number of Employers Jun 2009	Absolute Change % 03 - 09	Change 03 - 09
561 Administrative and support services	595	41.18%	20,942	19,811	-1,131	-5.40%
541 Professional, scientific and technical services	230	15.92%	76,758	77,367	609	0.79%
913 Local, municipal and regional public administration	210	14.53%	35	56	21	60.00%

Source: Statistics Canada, 2006 Census; Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009.

Matrix of Skills Transferability⁶:

Transferability between occupations has been analyzed using the National Occupational Coding system. Judgments have been made based on an analysis of available information regarding the overlap of knowledge and skills and labour market hiring practices for occupations. Occupations to which transferability exists are:

There are no direct occupations linked to this occupation based on the matrix of skills transferability. However, the following have been identified as related occupations:

- Forestry Technologists and Technicians (NOC 2223)
- Landscape Architects (NOC 2152)
- Biological Technologists and Technicians (NOC 2221)

Local Employers:

The following list of employers was randomly selected as examples of companies employing this occupation. An attempt was made to represent a company from each local board area.

Clintar Landscape Management

1151 Heritage Road, Station Main
Burlington, Ontario L7L 4Y1
Telephone: 1 905 332 8800
Fax: 1 905 332 8803
www.clintar.com

Nectar Landscaping

4 Burnley Ave.
Scarborough, Ontario M1R 2M4
Telephone: 1 416 565 9217
www.nectarlandscaping.ca

Walter's Landscaping

10 Ruggles Avenue
Thornhill, Ontario L3T 3S5
Telephone: 1 905 889 2691
Fax: 1 905 889 8791
www.walterslandscaping.com

For a more complete listing of potential employers please visit www.labourmarketinformation.ca.

ENDNOTES

¹Human Resources Skills Development Canada. National Occupational Classification System 2006. www5.hrsdc.gc.ca/NOC.

²Human Resources Skills Development Canada. Essential Skills Profiles. www.hrsdc.gc.ca/eng/workplaceskills/essential_skills/general/home.shtml

³Service Canada. Job Futures – National Edition. 2007. www.jobfutures.ca.

⁴Statistics Canada. 2006 Census. www.statcan.gc.ca.
Note: These salaries represent an average of both unionized and non-unionized workers. Salaries may vary by workplace.

⁵Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009. www.statcan.gc.ca.

⁶Human Resources Skills Development Canada. Matrix of Skills Transferability – January 2003. www.hrsdc.gc.ca.

Sustainability and Social Responsibility Coordinator

NOC 4161

Sustainability and social responsibility coordinators conduct research, prepare reports, provide consultation and advice and administer programs in a variety of areas related to environmental sustainability and social responsibility¹.

Places of Employment¹:

- Federal, provincial and municipal government
- Educational institutions
- Research organizations
- Consulting firms
- Environmental and conservation organizations
- Self-employed

Employment Requirements¹:

- A bachelor's degree or college diploma in a related scientific or technical discipline is usually required for occupations in this unit group
- A master's degree in a related scientific discipline may be required
- Certification in environmental sustainability may be required

Local Educational Programs:

Program	Length	Certification	Institutions
Certificate in Sustainability	N/A	Certificate in Sustainability (CKSS)	Ryerson University
Energy and the Environment	4 year	Degree	University of Ontario Institute of Technology
Environment and Behaviour	4 years	Degree	University of Toronto
Environment and Energy	4 years	Degree	University of Toronto
Environmental Engineering	4 years	Degree	University of Toronto
Environmental Ethics	4 years	Degree	University of Toronto
Environment and Health	4 years	Degree	University of Toronto, York University
Environment and Science	4 years	Degree	University of Toronto, York University
Environment and Society	4 years	Degree	University of Toronto
Environmental Policy and Practice	4 years	Degree	University of Toronto
Environmental Resource Science Studies	4 years	Degree	Trent University
Environmental Studies Program	4 years	Degree	York University
Environmental Studies Preparation Certificate	N/A	Certificate	Centennial College
Environmental Technology	3 years	Diploma	Durham College, Georgian College, Humber College
Innis Environmental Studies Programs	4 years	Degree	University of Toronto
Masters in Sustainability	Masters	Masters	Trent University
Sustainable Energy	4 years	Degree	University of Toronto

The most important Essential Skills for this occupation are²:

- Reading text
- Writing
- Document use
- Communication

The most important High School subjects are³:

- English
- Sciences
- Business
- Math

Sustainability and Social Responsibility Coordinator

NOC 4161

Number of Employees by Age Range³:

Age Range	Durham	Peel Halton	Simcoe Muskoka	Toronto	York Region BWG	Total
15 – 24 years	10	30	0	50	25	115
25 – 44 years	50	370	60	725	250	1,455
45 years and over	80	180	40	375	140	815
Total Employees	140	580	100	1,150	415	2,385
% 45 years +	57.14	31.03%	40.0%	32.61%	33.73%	34.17%

Source: Statistics Canada, 2006 Census

Average Salary

Based on 2006 Census Data⁴:

Durham	\$ 75,679
Peel Halton	\$ 72,303
Simcoe Muskoka	\$ 56,662
Toronto	\$ 72,127
York Region BWG	\$ 56,697
Ontario	\$ 72,431

Top Industries of Employment for 5 regions^{4,5}:

Across all five regions, there are 2,385 sustainability and social responsibility coordinators employed. The top industries of employment are:

Industry (NAICS)	Number of People Employed	% of Total
541 Professional, scientific and technical services	1,000	41.93%
912 Provincial and territorial public administration	495	20.75%

Source: Statistics Canada, 2006 Census; Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009.

Matrix of Skills Transferability⁶:

Transferability between occupations has been analyzed using the National Occupational Coding system. Judgments have been made based on an analysis of available information regarding the overlap of knowledge and skills and labour market hiring practices for occupations. Occupations to which transferability exists are:

There are no direct occupations linked to this occupation based on the matrix of skills transferability. However, the following have been identified as related occupations:

- Business Development Officers and Marketing Researchers and Consultants (NOC 4163)
- Judges, Lawyers and Quebec Notaries (NOC 411)
- Psychologists (NOC 4151)
- Managers in Public Administration (NOC 041)

Local Employers:

The following list of employers was randomly selected as examples of companies employing this occupation. An attempt was made to represent a company from each local board area.

Grand & Toy
33 Green Belt Drive
Toronto, Ontario M3C 1M1
www.grandtoy.ca

Green For Life
401 Magnetic Drive, Unit # 20
Toronto, Ontario M3J 3H9
www.greenforlife.ca

The Scheinman Group
80 Fulton Way, Suite 202
Richmond Hill, Ontario L4B 1J5
www.scheinmangroup.com

ENDNOTES

¹Human Resources Skills Development Canada. National Occupational Classification System 2006. www5.hrsdc.gc.ca/NOC.

²Human Resources Skills Development Canada. Essential Skills Profiles. www.hrsdc.gc.ca/eng/workplaceskills/essential_skills/general/home.shtml.

³Service Canada. Job Futures – National Edition. 2007. www.jobfutures.ca.

⁴Statistics Canada. 2006 Census. www.statcan.gc.ca.

⁵Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009. www.statcan.gc.ca.

⁶Human Resources Skills Development Canada. Matrix of Skills Transferability – January 2003. www.hrsdc.gc.ca.

For a more complete listing of potential employers please visit www.labourmarketinformation.ca.

Urban and Land Use Planners

NOC 2153

Urban and land use planners develop plans and recommend policies for managing land use, physical facilities and associated services for urban and rural areas and remote regions. They help local officials alleviate social, economic, and environmental problems by recommending locations for roads, schools, and other infrastructure and suggesting zoning regulations for private property - work that requires forecasting the future needs of the population.¹

Places of Employment¹:

- Government
- Architectural, engineering, and landscape consulting/contracting firms
- Business corporations
- Business surveying firms
- Land developers
- Self employed

Employment Requirements¹:

- A bachelor's degree in urban and regional planning, geography, architecture, engineering or a related discipline is required
- A master's degree in one of these disciplines may be required
- Membership in the Canadian Institute of Planners is usually required
- Membership in a provincial planning institute may be required in some provinces

Local Educational Programs:

Program	Length	Certification	Institutions
Architectural Science	4 years	Bachelor of Architectural Science	Ryerson University
Architectural Technician/Technology	2 years (technician) 3 years (technology)	Diploma Advanced Diploma	Centennial College, George Brown College, Humber College, Sheridan College
Environmental Geography	4 years	Bachelor of Arts	University of Toronto
Geographic Analysis	4 years	Bachelor of Arts in Geographic Analysis	Ryerson University
Urban and Regional Planning	4 years	Bachelor of Urban and Regional Planning	Ryerson University

The most important Essential Skills for this occupation are²:

- Writing
- Oral communication
- Critical thinking

The most important High School subjects are³:

- Math
- Computer-related courses
- Drafting
- English
- Blueprint reading

Number of Employees by Age Range⁴:

Employees by Age Range	Peel Halton	Toronto	York Region Brad WG	Total
15 – 24 years	20	45	25	90
25 – 44 years	275	640	140	1,055
45 years and over	165	325	115	605
Total Employees	460	1,010	280	1,750
% 45 years +	35.87%	32.18%	41.07%	34.57%

Source: Statistics Canada, 2006 Census

Average Salary

Average Salary based on 2006 Census Data ⁴	
Peel Halton	\$ 69,831
Toronto	\$ 70,788
York Region Brad WG	\$ 82,751
Ontario	\$ 69,216

Urban and Land Use Planners

NOC 2153

Top Industries of Employment for 3 regions^{4,5}:

Across all three regions there are 1,745 urban and land use planners employed. The top industries of employment are:

Industry (NAICS)	Number of People Employed	% of Total	Number of Employers Dec 2003	Number of Employers Jun 2009	Absolute Change % 03 - 09	Change 03 - 09
913 Local, municipal and regional public administration	820	46.99%	35	56	21	60.00%
541 Professional, scientific and technical services	545	31.23%	76,758	77,367	609	0.79%
912 Provincial and territorial public administration	120	6.88%	45	243	198	440.00%

Source: Statistics Canada, 2006 Census; Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009.

Additional Information¹:

- Progression to management positions in planning is possible with experience

Matrix of Skills Transferability⁶:

Transferability between occupations has been analyzed using the National Occupational Coding system. Judgments have been made based on an analysis of available information regarding the overlap of knowledge and skills and labour market hiring practices for occupations. Occupations to which transferability exists are:

- Professional occupations in business services to management (1122)

Local Employers:

The following list of employers was randomly selected as examples of companies employing this occupation. An attempt was made to represent a company from each local board area.

Thurber Engineering Ltd.
Suite 103, 2010 Winston Park Drive
Oakville, Ontario L6H 5R7
Telephone: 1 905 829 8666
Fax: 1 905 829 1166
www.thurber.ca

Bousfields Inc.
3 Church Street, Suite 200
Toronto, Ontario M5E 1M2
Telephone: 1 416 947 9744
Fax: 1 416 947 0781
www.bousfields.ca

JSW and Associates
20 Mural Street, Unit 10
Richmond Hill, Ontario L4B 1K3
Telephone: 1 905 889 8100
Fax: 1 905 889 6616
www.jsw.ca

For a more complete listing of potential employers please visit www.labourmarketinformation.ca.

ENDNOTES

¹Human Resources Skills Development Canada. National Occupational Classification System 2006. www5.hrsdc.gc.ca/NOC.

²Human Resources Skills Development Canada. Essential Skills Profiles. www.hrsdc.gc.ca/eng/workplaceskills/essential_skills/general/home.shtml

³Service Canada. Job Futures – National Edition. 2007. www.jobfutures.ca.

⁴Statistics Canada. 2006 Census. www.statcan.gc.ca.
Note: These salaries represent an average of both unionized and non-unionized workers. Salaries may vary by workplace.

⁵Statistics Canada. Canadian Business Patterns Data. December 2003, June 2009. www.statcan.gc.ca.

⁶Human Resources Skills Development Canada. Matrix of Skills Transferability – January 2003. www.hrsdc.gc.ca.



durham
workforce
authority

Peel Halton  Workforce
Development
Group

TWIG | TORONTO WORKFORCE
INNOVATION GROUP

Workforce 
Planning BOARD
OF YORK REGION & BRADFORD WEST GUILMBURY