



CHARACTERISTICS OF  
**CANADIAN ENVIRONMENTAL  
PRACTITIONERS**

*2006*



**ECO CANADA**

Environmental Careers Organization  
L'Organisation pour les carrières en environnement

## E C O C A N A D A

ECO Canada develops programs that help individuals build meaningful environmental careers, provides employers with resources to find and keep the best environmental practitioners, and informs educators and governments of employment trends to ensure the ongoing prosperity of this growing sector.



## E L M R E S E A R C H

ELM (Environmental Labour Market) Research investigates current environmental skill and labour trends within the environmental profession and provides up-to-date, timely and relevant insights that can be applied in policy, business, and educational contexts. The complete collection of ELM reports is available at [www.eco.ca](http://www.eco.ca).



ECO CANADA

Environmental Careers Organization  
L'Organisation pour les carrières en environnement

ENVIRONMENTAL LABOUR MARKET  
(ELM) RESEARCH

CHARACTERISTICS OF CANADIAN  
ENVIRONMENTAL PRACTITIONERS  
2006

ECO Canada

Canada

This project is funded by the Government  
of Canada's Sector Council Program



#### ECO Canada

ECO Canada (Environmental Careers Organization) develops programs that help individuals build meaningful environmental careers, provides employers with resources to find and keep the best environmental practitioners and informs educators and governments of employment trends to ensure the ongoing prosperity of this growing sector.

The organization offers a suite of resources designed to meet the professional needs of this rapidly growing industry, including the largest environmental online job board in Canada, certification for environmental practitioners, and a wage-subsidy internship program.

#### ELM Research

ELM (Environmental Labour Market) Research investigates current environmental skill and labour trends within the environmental profession and provides up-to-date, timely and relevant insights that can be applied in policy, business and educational contexts. The complete collection of ELM reports is available at [www.eco.ca](http://www.eco.ca).

Copyright © 2007 ECO Canada

All rights reserved. The use of any part of this publication, whether it is reproduced, stored in a retrieval system, or transmitted in any form or means (including electronic, mechanical, photographic, photocopying or recording), without the prior written permission of ECO Canada is an infringement of copyright law.

ECO Canada, 2007. *Characteristics of Canadian Environmental Practitioners*, Environmental Labour Market (ELM) Research, Environmental Careers Organization of Canada.

ISBN 978-0-9783070-0-4

#### ECO Canada

Suite 200 - 308, 11th Avenue SE  
Calgary, Alberta T2G 0Y2

Tel.: (403) 233-0748 or 1-800-890-1924

Fax: (403) 269-9544

[info@eco.ca](mailto:info@eco.ca)

[www.eco.ca](http://www.eco.ca)

# TABLE OF CONTENTS

<b>ACKNOWLEDGEMENTS</b>	ii
<b>NATIONAL STEERING COMMITTEE</b>	iii
<b>EXECUTIVE SUMMARY</b>	iv
<b>SECTION 1: INTRODUCTION</b>	01
<b>SECTION 2: EMPLOYEE RECRUITMENT</b>	02
2.1 Attraction to the Environmental Sector	02
2.2 Finding Employment	02
2.3 Barriers to Finding Employment	03
2.4 Barriers to Finding Employment - Immigrants	04
2.5 Relocation to Find Employment	05
<b>SECTION 3: EMPLOYEE ENGAGEMENT</b>	06
3.1 Employee Turnover in the Environmental Sector - Current	06
3.2 Employee Turnover in the Environmental Sector - Forecasted	07
3.3 Factors Affecting Employee Retention	09
3.4 Factors Affecting Employee Satisfaction	10
3.5 Relationship between Job Satisfaction and Employee Retention	11
<b>SECTION 4: EDUCATION AND TRAINING</b>	12
4.1 Educational Backgrounds	12
4.2 Education and Training - Challenges	13
4.3 Education and Training - Motivations	14
4.4 Preferred Training Formats	15
<b>SECTION 5: CONCLUSIONS</b>	16
<b>APPENDIX A: METHODOLOGY</b>	18
<b>APPENDIX B: CHARACTERISTICS OF RESPONDENTS</b>	20
<b>APPENDIX C: GLOSSARY OF KEY TERMS</b>	24
<b>APPENDIX D: SURVEY QUESTIONNAIRE</b>	25

## ACKNOWLEDGEMENTS

This report would not have been possible without the support of over 2,200 environmental employees from across the country who completed the survey related to this study. ECO Canada deeply appreciates the work of all organizations and individuals who promoted the survey to their members, friends and co-workers.

In addition, we thank the 14 members of the National Steering Committee (NSC) who guided this study by providing feedback during various stages of the project. Special thanks go to R.A. Malatest & Associates for carrying out the research required for this study, including data collection and analysis.

This study was made possible with the financial support of the Government of Canada's Sector Council Program.

## NATIONAL STEERING COMMITTEE

John Appleby  
Senior Economist, Environmental Industries,  
Industry Canada

Tony Boydell  
Director, School of Environment & Sustainability,  
Royal Roads University

Christopher J. Bruce  
Professor, Department of Economics, University of Calgary

Michael Cloghesy  
President, Centre patronal de l'environnement  
du Québec

Cameron Faminow  
President/Senior Environmental Planner,  
Ghostpine Environmental Services Ltd.

Blane M. Harvey  
Principal, Frost Campus, Sir Sandford Fleming,  
School of Environmental and Natural Resource Sciences

Paul Hébert  
Executive Director, Mining Industry Human Resources  
Council (MiHR)

John Martin  
Chairman of the Board of Directors,  
Maxxam Analytics Inc.

Robert McCharles  
Director Regional Operations,  
Dillon Consulting Limited

Bruce Mitchell  
Chief, Environmental Protection Accounts and Surveys  
Section, Statistics Canada

Scott Orth  
Senior Manager and Principal,  
Golder Associates

Peter Sutton  
Senior Project Manager,  
Terrapex Environmental Ltd.

Shannon Campbell (ex-officio)  
Sector Council Program, Human Resources Partnerships,  
Human Resources and Social Development Canada

Grant Trump (Chair)  
President & CEO,  
ECO Canada

Kitt Chanthaboune (ex-officio)  
Manager, Labour Market Information,  
ECO Canada

Anasuya Chattopadhyay (ex-officio)  
Manager, Labour Market Information,  
ECO Canada

## EXECUTIVE SUMMARY

"Knowledge-based Economy" (KBE) is a term that is being used more and more prevalently when discussing how economic systems are evolving away from traditional drivers of productivity (capital and labour) and moving towards the emerging drivers of information and knowledge. What this means to Canadian environmental employers is that their only real competitive advantage in the marketplace resides in their organization's process of innovation, problem solving, and their ability to derive value from the information it generates. The success of each of these processes is driven by one common factor: the knowledge and competence of their people.

While the Canadian economy is well positioned to be competitive in a global knowledge economy (based primarily on its highly educated workforce and its strong information technology/communications infrastructure) there are some factors that are potential inhibitors. These include the lack of investment in research and development and, most relevant for this report, underdeveloped human resource strategies. In the context of the Canadian environmental sector, a company's ability to effectively recruit skilled workers and develop mechanisms to keep them engaged and productive has become the primary determinant of competitiveness.

Human Resources (HR) have traditionally been associated with internal practices that manage the "human capital" of an organization, but in today's context HR should be more accurately seen as a driver and builder of value for an organization. A company's ability to measure and forecast its value requires:

- An understanding of its collective competence;
- A strategy to retain existing knowledge (through high levels of employee engagement); and
- A strategy to ensure an ongoing growth of knowledge (via effective recruitment and learning plans).

This unique study offers insight into the characteristics of environmental practitioners – tracing their motivations, as well as factors that impact their level of engagement as they progress through their careers. This report will provide employers with a deeper understanding of their employees' motivations, influence the development of more refined human resource strategies, and increase the effectiveness of employee recruitment and engagement practices.

### CRITICAL FINDINGS

The *Characteristics of Canadian Environmental Practitioners* report is a compilation of data gathered and analyzed from 2,276 survey respondents. This information was analyzed and discussed at nine focus groups held across the country involving environmental practitioners, employers, and educators. The information in this report is divided into sections related to Employee Recruitment, Employee Engagement, and Education and Training with key highlights outlined below.



### **Environmental practitioners are driven by a desire to improve the environment**

Over half of survey respondents (56%) indicated that a desire to improve the environment was the most important factor affecting their decision to work in the environmental sector. Consistent with these findings, nearly all focus group participants expressed strong environmental values and passion for their work. This report will explore the motivations of practitioners to enter and stay in the environmental labour market.

### **Environmental practitioners are highly-educated and are committed to on-going learning throughout their career**

The majority of respondents (73%) have a university education compared to 44% of the general labour market. A large number of respondents (35%) also indicated that they returned to school after starting their career most often because of a desire for greater career advancement. This report will provide insight into the educational patterns of the environmental labour market and investigate the motivations and preferences for ongoing professional development.

### **High job satisfaction of environmental practitioners is impacted by co-workers and the ability to learn and grow on-the-job**

Most survey respondents (72%) reported being very satisfied with their employment. Co-worker relationships (77%), learning on the job (73%), and working conditions (70%) were among the factors that had the highest levels of satisfaction. This report will analyze the relationship between job satisfaction and employee retention.

### **High turnover of environmental practitioners remains a significant issue with unrewarding job and lack of advancement opportunity identified as key factors**

A high percentage of survey respondents (72%) reported that they had left their previous job within five years of being hired. Over 43% of respondents stayed with their previous employers for two years or less. In addition, over 36% of respondents indicated that they expect to leave their current employer in the next five years. This report will examine the motivations behind this trend and provide forecasted turnover rates for the sector.

## SECTION 1: INTRODUCTION

The current report presents the results of the *2005-2006 Study of Environmental Practitioners in Canada*. This study was developed by ECO Canada and funded by Human Resources and Social Development Canada (HRSDC).

The primary objective of the *2005-2006 Study of Environmental Practitioners in Canada* was to provide information about the labour market for environmental practitioners. In particular, the study was designed to:

- Evaluate education and on-going training requirements for environmental practitioners in Canada;
- Determine levels of job/career satisfaction of environmental practitioners in Canada; and
- Identify factors that influence the choice of career and/or retention in the sector.

The survey for this study was distributed to a sample of environmental employees developed using the following data sources:

- A database of environmental practitioners supplied by ECO Canada;
- Employers consulted as part of the *2004 Environmental Labour Market (ELM) Report*, who were contacted to distribute the survey to their employees;
- Environmental practitioners who were contacted by ECO Canada directly or who accessed ECO Canada's website; and
- Other data sources, such as public directories of organizations or individuals in Canada working in areas related to the environment.

In total, 5,271 environmental employees and 500 organizations were contacted to complete the survey. The *2005-2006 Survey of Environmental Practitioners in Canada* was completed by 2,879 individuals, for a response rate of 50%. Only 2,276 surveys were valid.

Details concerning the survey methodology and the data collection process are provided in Appendix A.

## SECTION 2: EMPLOYEE RECRUITMENT

To meet the growing demands for environmental work it is critical that Canadian environmental employers develop new and innovative methods to recruit new workers to their companies. A key component of an effective recruitment strategy is an understanding of the motivations and career ambitions of potential employees and where they can be found. This section of the report summarizes the experience of environmental practitioners when looking for work in the environment industry.

### 2.1 Attraction to the Environmental Sector

Environmental practitioners are highly motivated by their concern for their environment. By far, the largest number of respondents (78%) indicated that a desire to improve the environment was among the top three reasons they pursued a career related to the environment. This was especially true for female respondents (83%). Responses were similar across male and female respondents, although men tended to place a higher value on career advancement and salary than their female counterparts. Table 1 highlights the most important factors in deciding to pursue an environmental career.

**TABLE 1**

Top Factors Affecting the Decision to Work in Environment-related Career by Gender

FACTOR	PROPORTION OF TOTAL (%)	PROPORTION OF FEMALE (%)	PROPORTION OF MALE (%)
Desire to improve the environment (n=1,765)	78	83	71
Variety of jobs and duties (n=1,207)	53	58	48
Working outdoors (n=932)	41	43	39
Opportunities for career advancement (n=593)	26	23	30
Salary / Compensation (n=466)	20	17	24
Opportunities to work in rural and remote areas (n=309)	14	14	13
Influential teacher (n=222)	10	12	7
Image of particular employer (n=141)	6	7	5

The majority of participants in the focus groups expressed strong environmental values and passion for their work. A few participants perceived the environmental sector as one that offers good employment opportunities, as it is a "sector of growth." Many find the sector appealing because it is a sector that is dynamic, thus offering new and challenging opportunities. However, some educators indicated that many of their students seem to have a rather idealized view of their career path. Employers consulted also reported that recent graduates do not have realistic expectations of their profession and that it can take several years before they develop an accurate understanding.

### 2.2 Finding Employment

Most individuals entering the job market found work quickly. The majority of respondents (55%) found a job related to their field of study within six months of completing their education. A significant proportion (38%) of respondents were offered employment while in school. In addition, 14% of respondents indicated that it took more than one year to find a job related to their field.

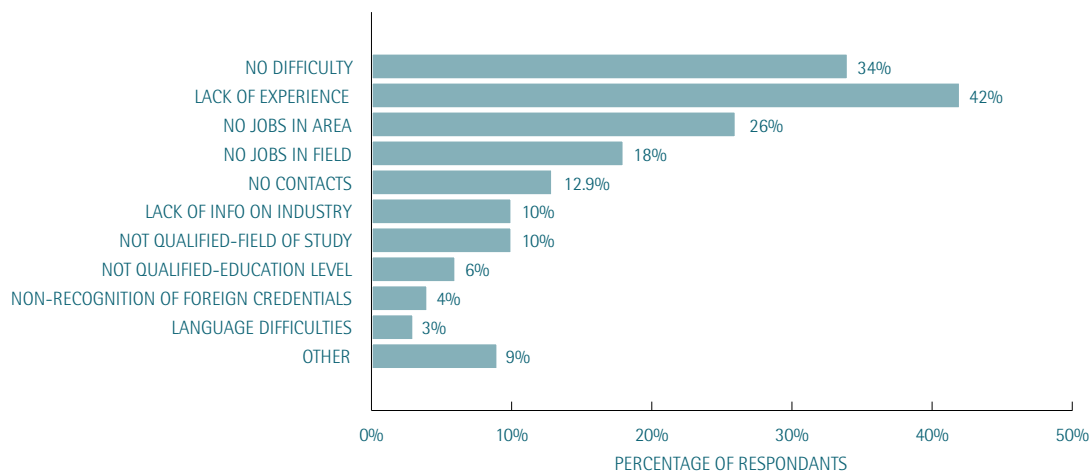
Level of education did make a difference in terms of the length of time to find a job. Individuals with a master's or doctorate degree (72.4%) were more likely to find a job in less than six months relative to the overall average (55%). Aboriginal respondents took three months longer on average to find a job related to their field (11 months) compared to non-Aboriginal respondents (8 months). There was little difference between the length of time to find a job for women versus men.

While increasing demand for environmental practitioners facilitates a faster transition into the labour market for employees it also creates a much more competitive recruitment market for environmental employers. Several educators in the focus groups pointed out that employers are visibly more aggressive in recruiting students at educational institutions than they were a few years ago and this has no doubt had a significant impact on the success and rapidity with which students find employment.

### 2.3 Barriers to Finding Employment

While the labour market advantage has shifted to favour the environmental practitioner over the past decade, there are still barriers that exist in securing employment. Understanding these obstacles and developing recruitment strategies to overcome them is critical for employers to find qualified staff. In total, 66% of respondents reported experiencing some difficulty finding employment related to their field. As indicated in Figure 1, the two reasons cited most frequently were lack of experience (42%) and a lack of jobs in geographical area (26%). These were also the most significant difficulties cited regardless of length of time in the workforce, gender, immigrant, or Aboriginal status.

**FIGURE 1**  
Barriers to Finding Employment



The barriers reported by survey respondents were consistent with those raised in the post-survey focus groups. Lack of professional experience was one of the biggest challenges expressed by environmental practitioners in relation to finding a job in their field and none were surprised by the survey results. Many participants indicated that in the early years of their career they had to build up their resume by either working on a contractual basis or working in areas not directly related to their field of study (although in

most cases this job was nevertheless related to the environment). Internships are one method that was identified as a means to address this issue as wage subsidies offset the financial risk of hiring candidates with little experience.

Another important challenge that was not reflected in the survey but that was quite significant in the focus groups is environmental practitioners' lack of knowledge about the labour market, particularly successful employment strategies. Many focus group participants felt that when they graduated, they were not well-equipped with certain job search skills, such as how to find employment opportunities, writing resumes, self-marketing strategies, and having a general understanding of their professional market value. Several participants also felt that they had not acquired adequate "soft skills" through their education, such as communication and writing skills, which in some cases limited their employment opportunities.

## 2.4 Barriers to Finding Employment - Immigrants

Given the labour shortages facing environmental employers, it is necessary to look at new and emerging pools of qualified workers. Providing mechanisms for potential immigrants and newcomers to gain entry into the environmental labour market is a critical priority for the Canadian environmental sector. About 15% of respondents were immigrants to Canada, of which 59% received their post-secondary education or training outside of Canada. Among immigrant respondents, approximately one-fifth (19%) had been in Canada for less than two years.

Almost one in five immigrants (21%) to Canada took less than one year to find a job related to their field, while 61% took one to three years. On average, immigrants took a year and a half to find a job related to their field compared to 1.2 years for non-immigrant respondents.

Immigrants to Canada reported more barriers to entering the workforce on nearly every level captured in the survey, including:

- Social networks: About 37% of immigrants said that they lacked social contacts that would help them find a job, compared to about 9% among non-immigrant respondents;
- Recognition of foreign credentials: Close to one-quarter (23%) of immigrants in the survey indicated that non-recognition of foreign credentials was a significant barrier to obtaining employment. This difficulty was true across a range of professions, including civil engineers and natural and applied science policy researchers;
- Language barriers: 10% of immigrants reported this difficulty, as opposed to 3% of non-immigrant respondents; and
- Informational gaps: 17% of immigrants reported having insufficient information about the Canadian environment industry compared to 10% of Canadian-born respondents.

Many of the immigrants participating in the focus groups were still without a job, some even after several years of searching. One of the main impediments explained by these individuals was indeed non-recognition of foreign credentials, as well as non-recognition of foreign work experience. Language

barriers and lack of professional contacts in Canada were also presented as obstacles. The majority of these participants are currently in school or taking courses to update their skills, including English language courses.

## 2.5 Relocation to Find Employment

As noted in Section 2.3, about one in four respondents (26%) identified that lack of employment within their geographical area was a barrier to employment. While this was an impediment to many respondents, almost half (48%) had relocated to another city to find a job. Among respondents who have relocated, about 26% moved within their province or territory, and 22% relocated to another province.

In terms of moving out-of-province, the proportion of people who moved inter-provincially was highest among respondents in the territories (40% to 60%) and Prince Edward Island (41%) (Table 2). At the other end, the lowest proportions of inter-provincial migrants were found among respondents in Ontario (15%) and Quebec (5%).

**TABLE 2**

Proportion of Respondents Who Have Relocated, by Province and Territory

PROVINCE/TERRITORY	WITHIN PROVINCE/ TERRITORY	TO ANOTHER PROVINCE/TERRITORY	DID NOT RELOCATE	TOTAL PER PROVINCE
British Columbia	25%	26%	49%	100%
Alberta	17%	34%	49%	100%
Saskatchewan	32%	26%	42%	100%
Manitoba	11%	29%	60%	100%
Ontario	35%	15%	49%	100%
Quebec	33%	5%	62%	100%
New Brunswick	21%	27%	52%	100%
Nova Scotia	18%	25%	56%	100%
Newfoundland & Labrador	23%	30%	48%	100%
Prince Edward Island	6%	41%	53%	100%
Nunavut	20%	40%	40%	100%
Northwest Territories	15%	50%	35%	100%
Yukon	0%	60%	40%	100%

The survey did not capture information about the specific direction of relocating respondents (i.e. origin and destination). Among focus group participants that had relocated to find work, the majority had moved to Western Canada (Calgary, Edmonton, or Vancouver). Job opportunities were perceived to be much better in these locations compared to other provinces. A few individuals relocated from smaller towns/cities to larger ones.

## SECTION 3: EMPLOYEE ENGAGEMENT

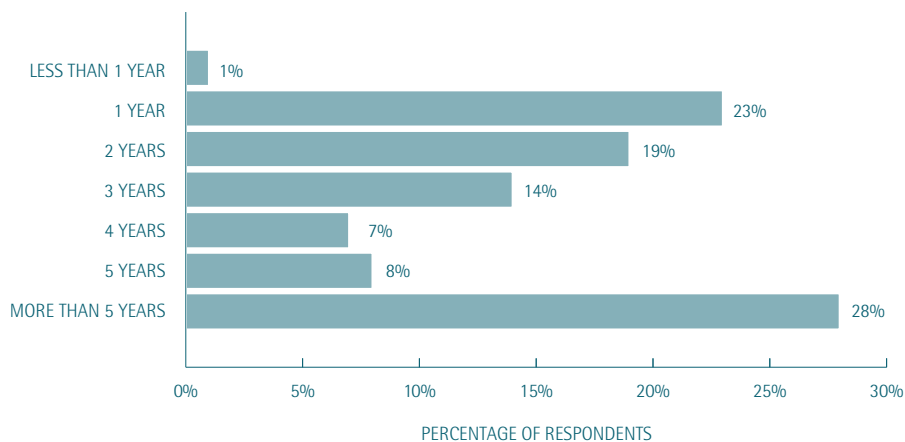
Employee engagement builds upon the concept of job satisfaction and is an indicator of an employee's ongoing enthusiasm and intention to remain with their employer (commitment). An understanding of employee engagement and strategies to monitor and increase these levels are critical to achieving high levels of productivity and employee retention. This section provides an overview of current and forecasted employee turnover rates and an analysis of the motivations of environmental practitioners.

### 3.1 Employee Turnover in the Environmental Sector - Current

The *2004 Environmental Labour Market Report*<sup>1</sup> identified "significant" turnover as a challenge for the environmental sector. The current study confirms a high rate of turnover among environmental practitioners; 72% of respondents who have been in the workforce for more than five years left their previous job within five years of being hired (Figure 2). More specifically, about 43% of respondents stayed with their previous employer for two years or less.

FIGURE 2

Average Length of Employment with Previous Employer



Note: Respondents who have been in the workforce for more than five years (n=1,200).

<sup>1</sup> ECO Canada, 2004. *2004 Environmental Labour Market (ELM) Report*, 44 pp.

On average, respondents remained with their previous employer for 3.6 years. The key factors affecting turnover are:

- Age: Respondents under 30 years of age worked on average 1.6 years for their previous employer. In contrast, respondents 45 to 54 years old worked for more than seven years;
- Sectors of the economy: Respondents in the not-for-profit sector stayed on average 2.8 years with their organization, compared to 4 years for those in the public sector; and
- Region: Respondents in Atlantic Canada worked on average 4.2 years with their previous employer. In contrast, those in Quebec and British Columbia worked 3.2 years.

The top four reasons given for leaving the previous employer were "job was not personally rewarding" (30%), "no opportunities for advancement" (28%), "salary not high enough" (28%), and "just wanted a change" (Table 3).

**TABLE 3**  
Reasons for Leaving Previous Employer

REASONS	PROPORTION OF TOTAL
Job was not personally rewarding	30%
No opportunity for advancement	28%
Salary was not high enough	28%
I just wanted a change	24%
Gain more responsibilities	17%
Laid off / lack of work	17%
I moved to a different city	16%
Wanted a career related to the environment	16%
Funding ran out	14%
Benefits were not competitive	13%
To start my own business	3%

Note: Respondents who have worked less than 5 years with their current employer (n=1,265).

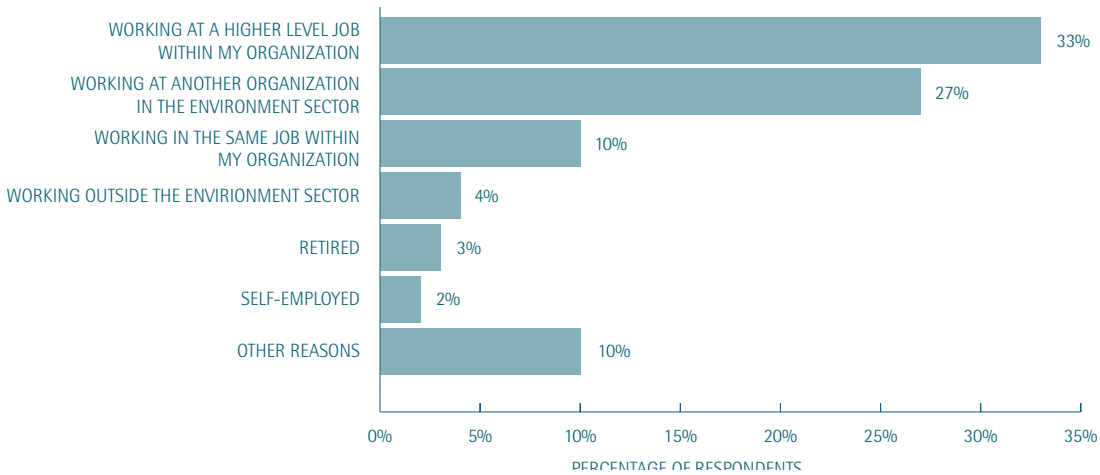
**3.2 Employee Turnover in the Environmental Sector – Forecasted**

High turnover in the environmental sector is expected to continue during the next five years. Over 36% of respondents indicated that they expect to leave their current employer in the next five years, either to work for another organization or to retire. As is illustrated in Figure 3, 27% of respondents planned to find a job in another organization in the environment sector. Only 10% of respondents expected to be working in the same job in their current organization in five years time. Fewer than 10% of respondents expected to leave the environmental sector, retire, or open their own business.



**FIGURE 3**

Employee Career Plans in the Next 5 Years



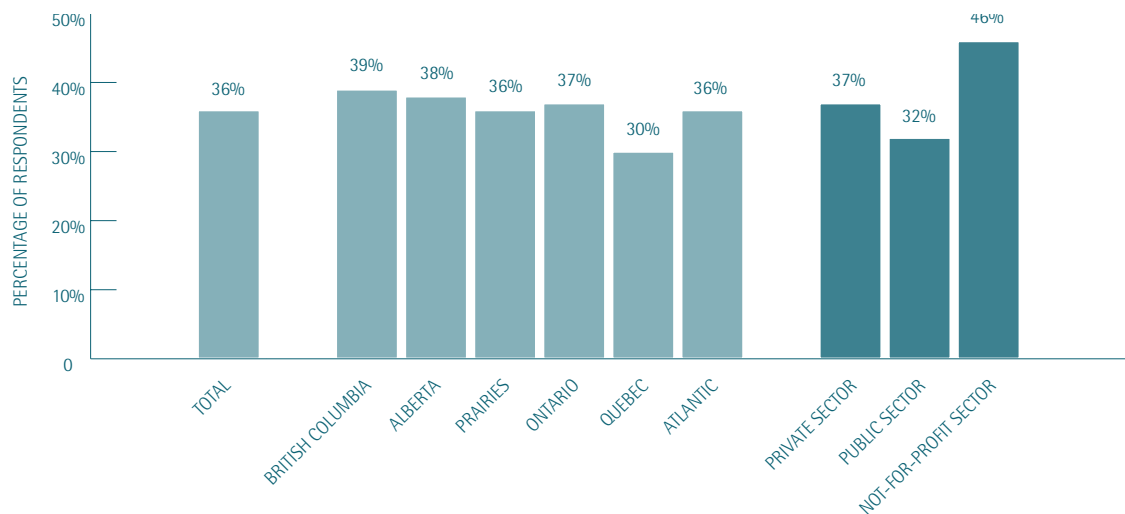
Note: Total is 89%; the remaining 11% of respondents answered 'did not know/no opinion.'

Overall, 3% of respondents plan to retire in the next five years. Further analysis revealed that 14% of executive level employees (i.e. presidents, CEOs, vice-presidents) plan to retire in five years, compared to 3.1% of intermediate level employees (i.e., directors, project managers, or senior biologists), and 0.8% of junior level employees.

As illustrated in Figure 4, it is expected that the not-for-profit sector will experience the highest level of staff turnover over the next five years (46%). In contrast, the results from the current study suggest that the public sector (32%) will experience the lowest level of turnover. It is expected that the lowest turnover rate will occur in Quebec (30%), and the highest levels of turnover will occur in BC and Alberta.

**FIGURE 4**

Projected Staff Turnover Rates by Region and Sector

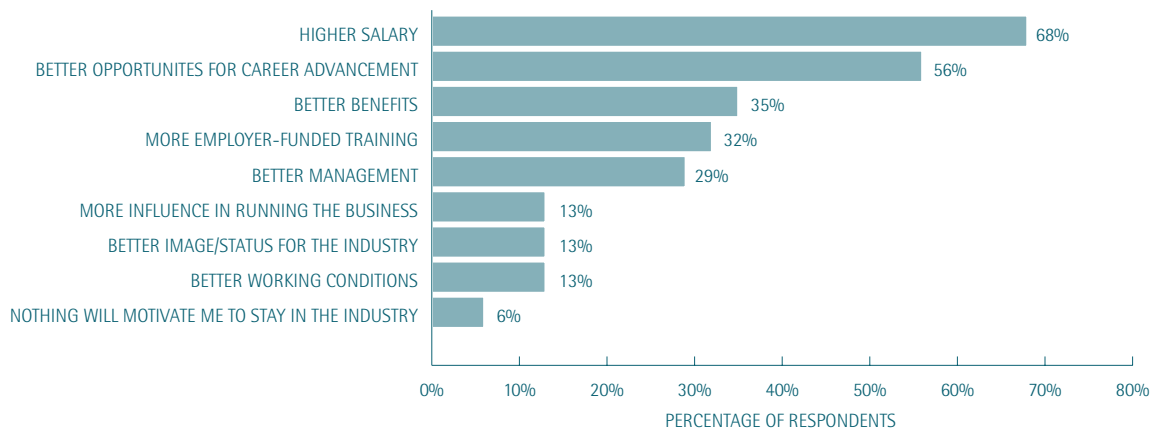


### 3.3 Factors Affecting Employee Retention

Although 72% of respondents are somewhat or very satisfied with their current career, 36% of respondents stated that they expected to leave their current organization within the next five years. As a result, retention practices are critical to the success of organizations in the environmental sector.

Among those who intend to work for another organization in the next five years, most indicated that a higher salary (68%) and better opportunities for career advancement (56%) would be the key incentives to motivate them to stay with their current employer (Figure 5).

**FIGURE 5**  
Factors Motivating Environmental Practitioners to Stay with their Current Employer



Note: Total does not add to 100% due to multiple responses.

Among respondents who were dissatisfied with their current salary, 83.7% felt that a higher salary would motivate them to stay with their current employer.

Some participants in the focus groups were surprised to see that salary was an important work satisfaction issue to survey respondents and speculated that this would only be a short-term incentive until a better opportunity arose.

Employment stability and job security were mentioned by several individuals as significant factors affecting their decision to stay with an employer, as well as management and human resources practices. In comparison, employers reported that they use various retention strategies. The majority feel that the most successful strategies are those that "work with the employee's sense of ethics and the impact of their work on improving the environment".

### 3.4 Factors Affecting Employee Satisfaction

Environmental practitioners have a high level of satisfaction with their jobs. About 72% of respondents indicated that they were "very or somewhat satisfied" with their current employment (Table 4). Areas of highest satisfaction included:

- Relationship with their co-workers (77%) (It is possible that the predominant emphasis on environmental values described in the focus groups results in like-minded co-workers building strong working relationships);
- Learning on the job (73%); and
- Working conditions and facilities (70%).

**TABLE 4**  
Level of Satisfaction with Current Job

ASPECTS	VERY OR SOMEWHAT SATISFIED	NEITHER SATISFIED NOR DISSATISFIED	VERY OR SOMEWHAT DISSATISFIED	DON'T KNOW
Relationship with co-workers	77%	9%	6%	7%
Learning on the job	73%	10%	13%	4%
Working conditions and facilities	70%	13%	12%	5%
Amount of responsibility	68%	12%	15%	5%
Flexible working hours	68%	15%	13%	6%
Safety on the job	66%	16%	9%	10%
Image of the company	63%	18%	12%	7%
Mentoring by senior staff	50%	17%	26%	8%
Management decisions	49%	22%	22%	7%
Employer-funded training	49%	17%	23%	11%
Benefits	49%	15%	28%	9%
Job security	48%	16%	29%	7%
Salary	48%	16%	32%	4%
Opportunities for career advancement	41%	20%	32%	7%
Pension plan	38%	17%	32%	13%
Overtime work	37%	31%	20%	13%
Seasonality of work	29%	35%	10%	27%
Alternate compensation	22%	21%	39%	18%
<b>OVERALL JOB SATISFACTION</b>	<b>72%</b>	<b>12%</b>	<b>12%</b>	<b>4%</b>

Note: Totals for each row do not add to 100% due to rounding.

Aspects of employment that received the highest rate of dissatisfaction were: alternate compensation (39% respondents indicated very or somewhat dissatisfied), pension plan, opportunities for career advancement, and salary (each with 32%). Dissatisfaction with salary was higher with respondents making less than \$40,000 (46%).

### 3.5 Relationship between Job Satisfaction and Employee Retention

Using regression analysis, employees' satisfaction with various aspects of their career was analyzed to assess the relationship between satisfaction and expected turnover. According to the regression analysis, the following factors were the strongest predictors of respondent's plans to change jobs:

- A perceived lack of opportunities for advancement: Specifically, the probability of an individual leaving his or her current organization in the next five years who is dissatisfied with career advancement opportunities is 46.9%. Dissatisfaction with career advancement opportunities increases the probability of leaving the current organization by 10.6%;
- Dissatisfaction with salary: The probability of an individual leaving his or her current organization in the next five years who is dissatisfied with his or her salary is 41.6%. Specifically, dissatisfaction with salary increases the probability of leaving the current organization by 5.3%; and
- Dissatisfaction with job security: The probability of an individual leaving his or her current organization in the next five years who is dissatisfied with job security is 43.9%. Dissatisfaction with job security increases the probability of leaving the current organization by 7.6%.

The strongest non-financial influence on turnover was opportunity for advancement. As a result, opportunities for promotion and challenging assignments may help to increase retention when salary increases are not possible. This is consistent with the concept of employee engagement put forward earlier in this section, which explains that an employee's enthusiasm for the work and their commitment to the organization requires an employer's understanding of what motivates them and an ability to build a long-term career path with them.

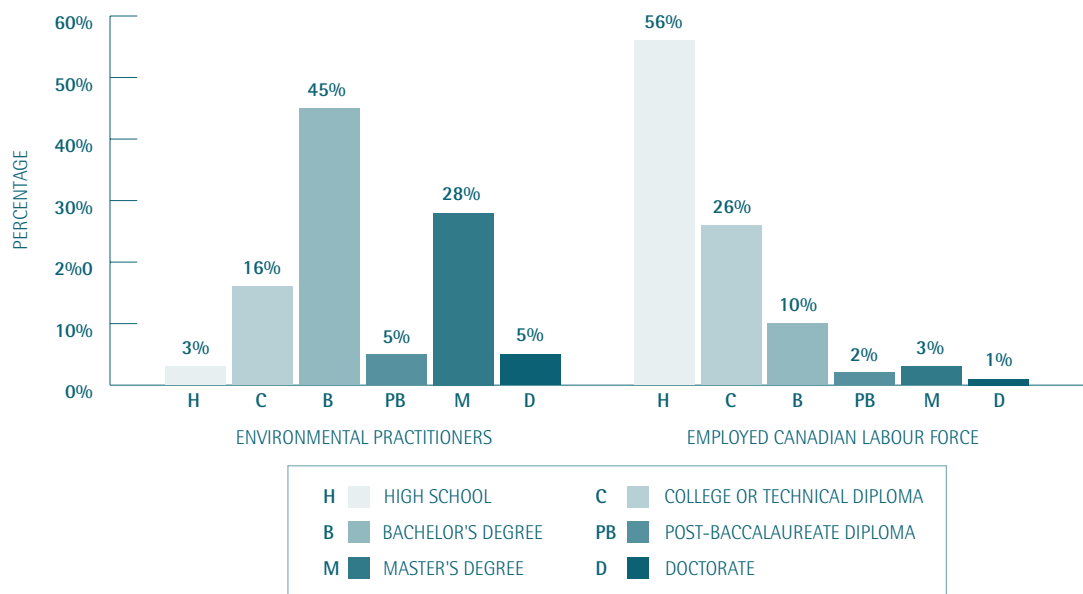
## SECTION 4: EDUCATION AND TRAINING

### 4.1 Educational Backgrounds

According to survey data, environmental practitioners are highly educated compared to the Canadian workforce as a whole. About 97% of respondents have a post-secondary degree or diploma, compared to 44% of the employed Canadian labour force (Figure 6).

**FIGURE 6**

Level of Education of Environmental Practitioners and the Canadian Labour Force



Sources: Canadian Labour Force from Statistics Canada (Highest Degree, Certificate or Diploma for Population 15 Years and Over, 2001 Census - 20% Sample Data)

Respondents who had been in the workforce for five years or less were more likely to have a university education (89.3%) compared to those who had been in the workforce for 10 years or more (70.7%). Inversely, respondents who had been in the workforce five years or less were less likely to have a college diploma (9.6%) compared to those who had been in the workforce for 10 years or more (21.6%).

More recent workers have completed their education in a field of study related to the environment than their predecessors. About 89.4% of respondents 35 years old or younger indicated that they had completed a program related to the environment, compared to 68.2% of respondents over 45 years old.

Environmental practitioners are highly active in continuing education. More than 35% of respondents had gone back to school since starting their career. Among respondents who returned to school after starting their careers, 54% went back to complete a full degree or diploma (46% university degree; 8% college diploma) and 26% to complete a certificate (14% university certificate; 12% college certificate). The remaining 20% completed other types of training or did not specify the program that were currently pursuing.

## 4.2 Education and Training - Challenges

Employers consulted as part of the focus groups expressed strong opinions about the need for "soft skills" such as communication and client liaison. Some employers reported that candidates being hired lack skills such as writing and other communication skills. One employer made the case that these soft skills are particularly relevant to the environmental field, given the need to communicate the policies relevant to their work. Employers suggested some strategies to redress the perceived training gap in communication skills for environmental practitioners, including:

- Encouraging academic institutions to be more "market driven". This might include greater coordination between employers and educators to modify program requirements; and
- Internal training for new hires to ensure that employees possess sufficient communication skills.

### *Barriers to Training*

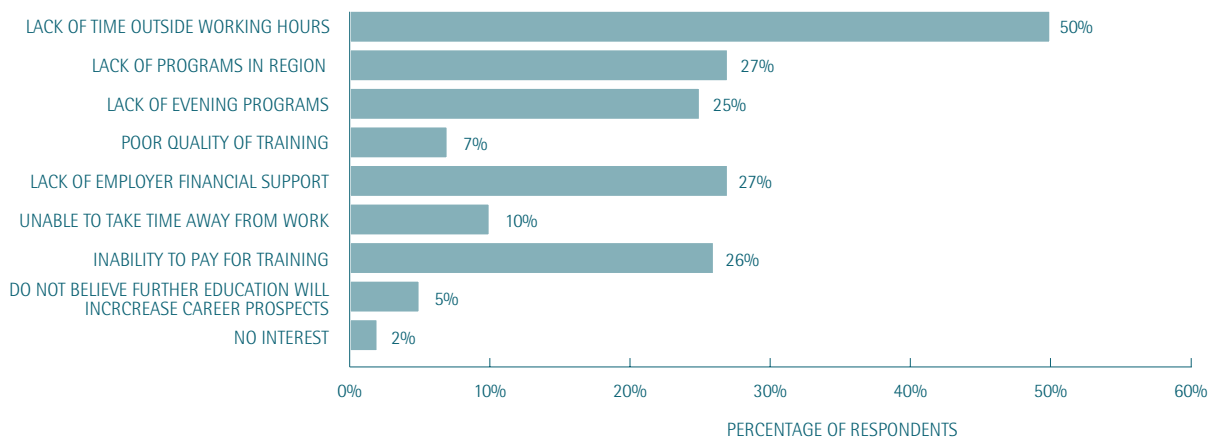
Over 80% of respondents reported one or more barriers to pursuing continuing education. The most significant barrier is lack of time to take training outside of working hours (50%) (Figure 9).

Barriers related to educational programs themselves included:

- Lack of programs in the region (27%);
- Lack of programs in the evening (25%); and
- Poor quality of available programs (7%).

Employer-related barriers were also significant, with 27% of respondents indicating that their employer did not provide financial support.

**FIGURE 7**  
Barriers to Continuing Education



Note: Percentages do not add to 100% due to multiple responses.

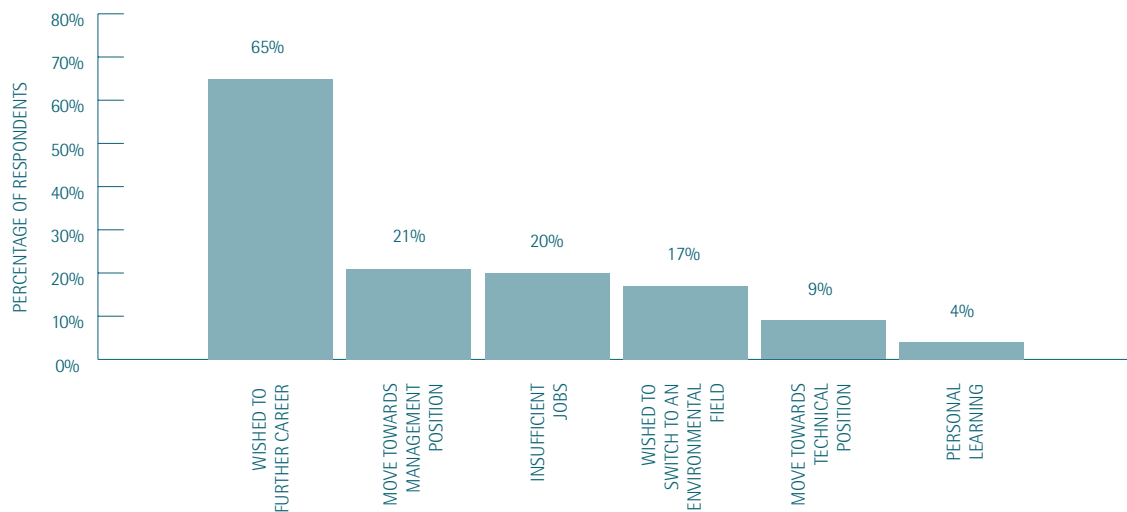
### 4.3 Education and Training – Motivations

Respondents pursuing further education were motivated by the possibility of advancing to a management position. The most important reason given by respondents who had gone back to school since starting their career was to "further their career" (65%), followed by "move towards management position" (21%) (Figure 8).

A high proportion of college graduates (20%) relative to university graduates (6%) indicated that a motivation to pursue post-secondary education was a desire to "move towards a technical position." In addition, college students were more likely to report "insufficient jobs" (35.8%) compared to other respondents (19.6%).

University students were more likely to switch to an environmental field after they had begun their career (24.1%) compared to other respondents (16.6%).

**FIGURE 8**  
Motivations for Returning to School After Starting Career



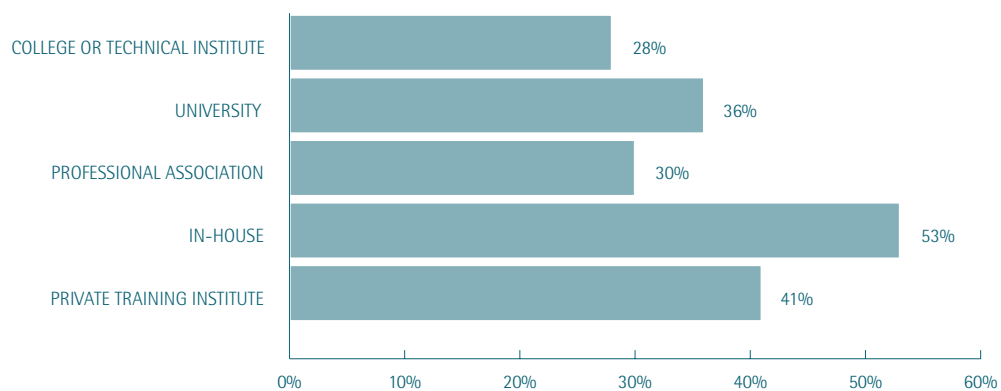
Note: Respondents who went back to school after starting their career (n=788). Percentages do not add to 100% due to multiple responses.

Approximately one-half of focus group participants had gone back to school since starting their careers. The majority explained that it was to advance their careers. Some explained that they wanted to enter a different practice area, or improve/refine their skills, while others said it was simply to increase their knowledge or finish a degree or diploma they had started previously.

#### 4.4 Preferred Training Formats

In addition to returning to school, many environmental practitioners also take work-related courses regularly. More than 65% of respondents attended work-related training at least once a year. The majority of respondents completed courses in-house at their place of employment (53%) or through a private training institute (41%) (Figure 9).

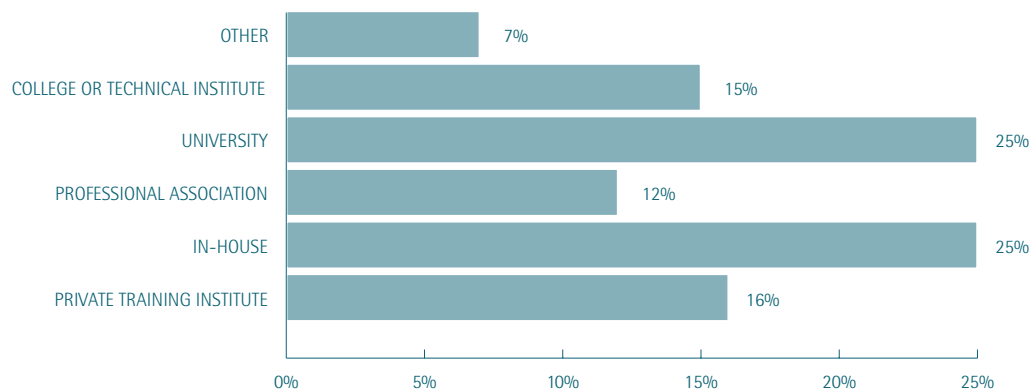
**FIGURE 9**  
Types of Training Formats Taken



Note: Respondents who have taken courses (n=1,500). Percentages do not add to 100% due to multiple responses

Despite the predominance of in-house training, respondents indicated a preference for university courses as well as training in-house (25% each) (Figure 10).

**FIGURE 10**  
Types of Training Formats Preferred



Note: Respondents who indicated a preference for training courses (n=905). The 'other' category includes conferences, workshops, seminars, and other options not specified.



Despite the high rate of continuing education, the following challenges with training formats were identified:

- Respondents taking online courses reported more barriers to undertaking further education than those taking education through other formats;
- Respondents taking an online course were more likely to report a lack of courses in the evening (33.7%) or in the region (39.9%) compared to other respondents (23.7% and 25.7% respectively); and
- College students were also more likely to report a lack of courses in the region (35.9%) compared to other respondents (26.0%).

## SECTION 5: CONCLUSIONS

This report has presented a profile of the characteristics and motivations of Canadian environmental practitioners. This information provides environmental employers with valuable insights into how their human resource strategies can best reflect the needs of current and potential employees.

### *Employee Recruitment*

This report found that the primary motivation for entering into environmental employment is a desire to improve the environment. Environmental practitioners are looking for employers who are a match not only with their technical expertise but with their ethical inclinations as well. While traditional marketing has been targeted at potential clients, progressive companies today are marketing their workplaces directly to prospective employees. These strategies serve to entice top applicants while also enhancing a company's reputation for hiring the best and brightest to potential clients and the general public.

This report also identified a number of barriers that environmental practitioners face when attempting to find employment. Given the labour shortages discussed throughout this report it is especially critical for the sector to understand and respond to the specific barriers delaying or prohibiting qualified immigrants from entering the environmental labour market. Specifically, vehicles to link these individuals to potential employers and mechanisms to recognize foreign work and educational experience are required to overcome these employment obstacles.

### *Employee Engagement*

The most critical human resource issue facing the environmental sector is the retention of their existing employees. This report provides valuable insight into the current and forecasted turnover rates and, more importantly, explores the factors that motivate employees to stay or leave a job. Understanding the concept of employee engagement and finding means to measure and respond to staff requirements is critical to positively impacting turnover rates. This report clearly demonstrates that an enthusiasm for their job and a clearly defined career path are the two most important considerations impacting a practitioner's desire to stay with his or her employer.

Successful employers will be redefining the employer/employee relationship to ensure that there is a clear understanding of what motivates their employees. These strategies will be dependant upon greater communication of staff needs and responsiveness to staff in the development of innovative HR strategies. Work/life balance considerations, alignment of corporate culture to staff ethics, greater interaction between senior and junior staff, participatory and communicated strategic planning are just a few of the initiatives that address the issues contributing to employee engagement.

### *Education and Training*

Life-long learning is a concept that has taken root within the environmental sector. A large number of respondents (35%) have gone back to school since beginning their career and professional development is a requirement to stay on top of the changing technical requirements of the sector. This report provides an overview of the educational levels and patterns of environmental practitioners and identifies a number of barriers that can inform employers' education and training plans. Given the importance that practitioners place on training in their career development, it is critical that employers understand the most effective formats to ensure the currency of their staff skills so that they can receive the best return on the training investment.

## APPENDIX A: METHODOLOGY

### SURVEY DESIGN

The study was design by ECO Canada and the research consultant, R.A. Malatest & Associates Ltd, using key themes identified in the 2004 Environmental Labour Market (ELM) Report and by the National Steering Committee (NSC) members who met in Toronto on June 16, 2005.

Two focus groups were held to refine and validate the design of the survey instruments. One focus group was conducted in Ottawa, Ontario with representatives from industry, government, and academia. This first group addressed several issues, including:

- The relevance and appropriateness of the proposed study topics;
- The extent to which the employee survey addressed the key information needs for the environmental sector; and
- How to best "market" the survey to environmental practitioners.

The second focus group, conducted in Victoria, BC was composed of environmental employees. This group validated the relevance, structure, and wording of the survey questionnaire.

Prior to launching the survey, a pre-test was emailed to 50 individuals to test the wording used in the survey instrument.

The survey questionnaire was made available online with CallWeb, by phone via a Computer Assisted Telephone Interview (CATI) system, and in a paper format downloadable from ECO Canada's website or on request.

### SURVEY SAMPLE AND DATA COLLECTION

Three techniques were used to reach environmental practitioners:

1. Sample of ECO Canada's members  
A random sample of 5,271 practitioners was extracted from 12,000 of ECO Canada's website users. This group of practitioners was contacted by email and invited to complete the survey online. Reminder emails were sent on December 12, 2005, January 9, 2006, and February 2, 2006. In addition, telephone follow-ups were carried out by the research consultant's survey staff between January 9, 2006 and February 24, 2006.
2. Sample of environmental employers  
Up to 500 employers who were among those who participated in the 2003 Environmental Labour Market Survey were contacted. Employers were encouraged to inform their employees about the survey.
3. Promotion of the survey to industry at large  
Targeted promotion of the survey was done by writing to various environmentally-related business associations, organizations, and groups in Canada. These organizations were encouraged to inform their members about the survey.

Data was collected between November 23, 2005 and February 28, 2006.

A total of 2,879 completed surveys were received. Most respondents (1,733) completed the survey via the link in their personalized email, 1,139 individuals completed the survey via ECO Canada's website, and 7 individuals returned the survey by fax.

Based on a sample size of 5,771 individuals (i.e., 5,271 ECO Canada website users plus 500 employers), the response rate for this survey was 50%.

	SAMPLE SIZE	SURVEY RECEIVED	RESPONSE RATE	VALID SURVEYS
<b>TOTAL</b>	5,771	2,879	50%	2,276

The results presented in this report are based on the 2,276 "valid surveys", which excludes the following:

- Respondents who resided outside of Canada;
- Respondents whose work was not related to environmental activities; and
- Respondents who were either "unemployed" or "students."

## VALIDATION OF RESULTS

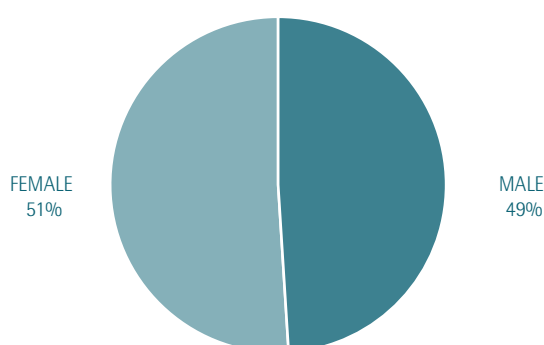
Nine validation focus groups were conducted in five different locations (Montreal, Toronto, Halifax, Edmonton and Vancouver) in April 2006. Each session had a targeted audience: practitioners, educators, or employers.

Feedback was prompted regarding preliminary results in the following areas: education to work transition; professional development; and attraction and retention. Where relevant, comments from post-survey focus group participants were included in this report.

## APPENDIX B: CHARACTERISTICS OF RESPONDENTS

An equal amount of respondents were males and females (Figure A1). The proportion of women respondents is higher than the estimated proportion of women in the environmental sector as a whole. The *2004 Environmental Labour Market Report* estimated that women represent 36% of the environmental sector.

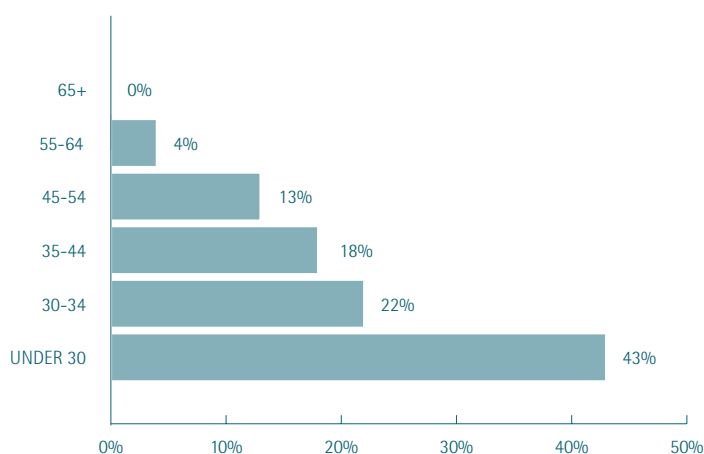
**FIGURE A1**  
Percentage of Male and Female Respondents



In total, immigrants and Aboriginals comprise 14% and 4% of the sample, respectively.

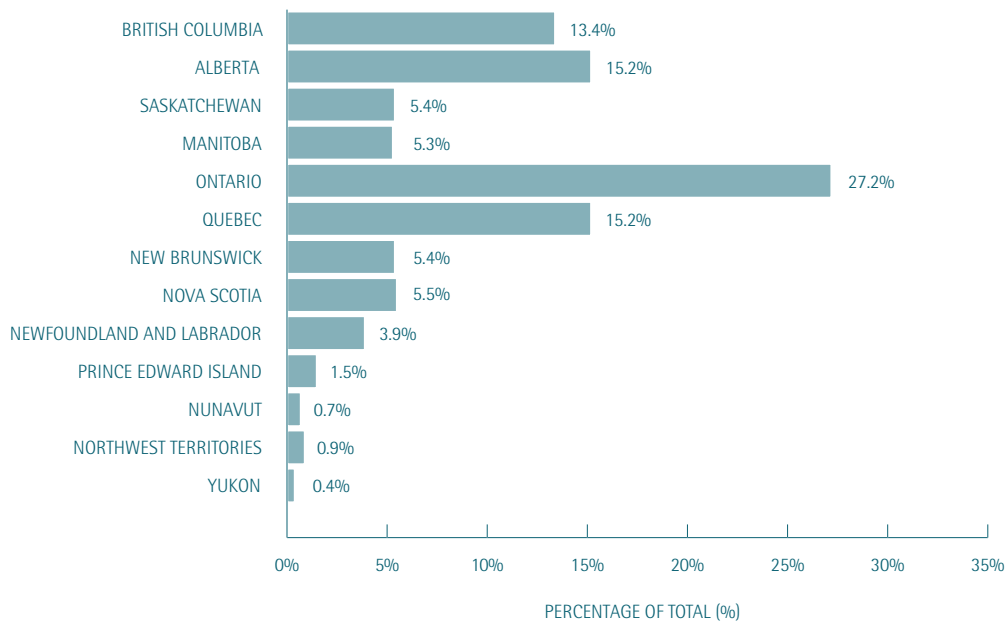
The distribution of respondents by age categories is presented in Figure A2. The largest proportion of respondents was under the age of 30 (43%). This can be explained in part by the reliance on ECO Canada's database, which has a high proportion of jobseekers at an early stage in their careers. They are attracted to ECO Canada for its environmental job board.

**FIGURE A2**  
Age Distribution of Respondents



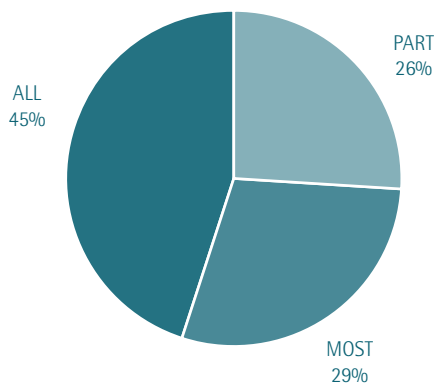
As shown in Figure A3, the geographical distribution of respondents in the sample reflects national population trends, with the majority of respondents located in Ontario (27%), Quebec (15%), and Alberta (15%).

**FIGURE A3**  
Geographical Distribution of Respondents



The majority of respondents indicated that they spend all or more than 50% of their work time on environmental activities (74%). As illustrated in Figure A4, slightly more than 26% of respondents spent less than 50% of their work time on activities related to the environment.

**FIGURE A4**  
Work Time Dedicated to Environmental Activities



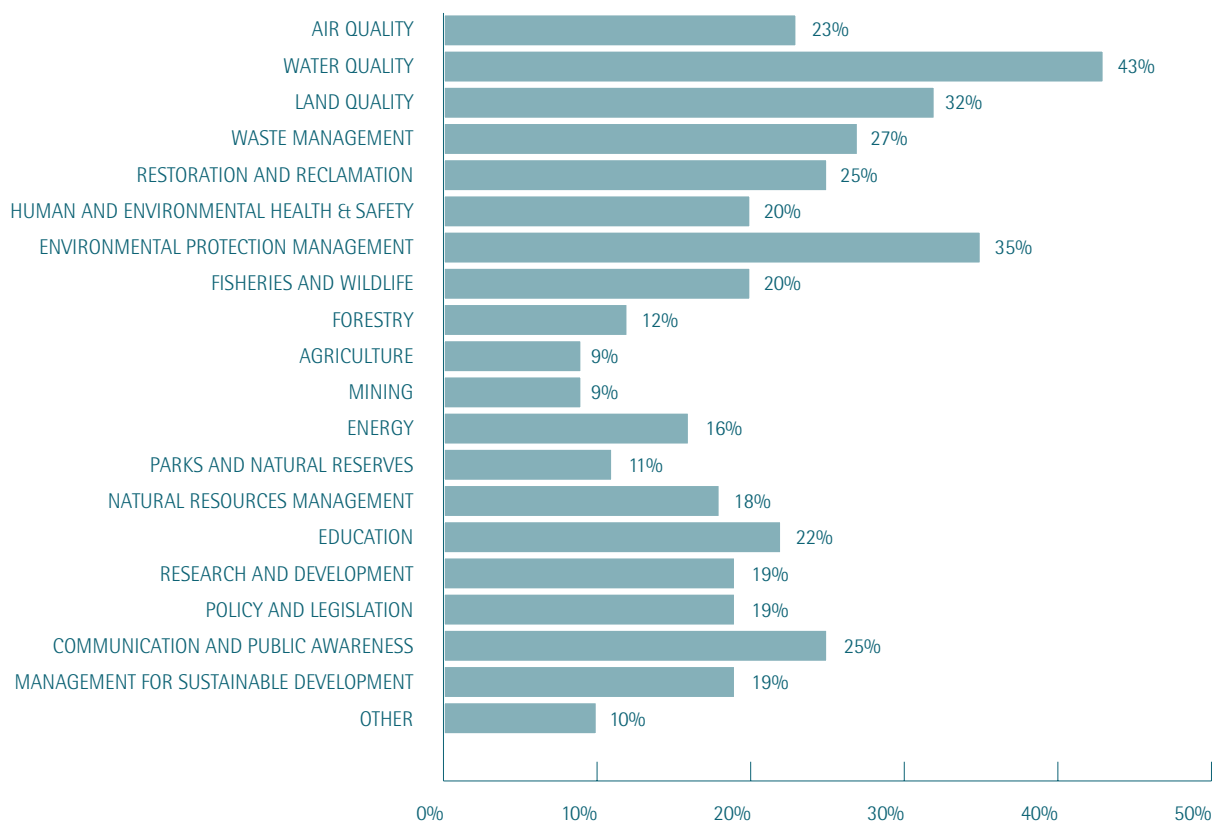
Note: Part = less than 50%, Most = more than 50% and All = 100%.

Survey respondents were mainly junior employees, such as coordinators, or junior technicians (53%). About 40% of respondents identified themselves as intermediate employees (e.g., director, project manager, or senior biologist) and 6% were executives (e.g., CEOs, presidents, vice-presidents).

The number of respondents employed in areas related to the environment is presented in Figure A5. The list was based on the 19 sub-sectors defined by ECO Canada's National Occupational Standards (NOS) for environmental employment.

**FIGURE A5**

Environmental Activities of Respondents



Note: Percentages do not add to 100% due to multiple responses (n=2,276)

Table A1 gives the distribution of the respondents by industry.

**TABLE A1**  
Industry of Respondents

INDUSTRY	TOTAL	% SHARE
Agriculture, Forestry, Fishing and Hunting	190	8.4%
Information and Cultural Industries	11	0.5%
Professional, Scientific and Technical Services	559	24.6%
Mining and Oil and Gas Extraction	120	5.3%
Management of Companies and Enterprises	9	0.4%
Accommodation and Food Services	6	0.3%
Arts, Entertainment and Recreation	7	0.3%
Construction	32	1.4%
Manufacturing	32	1.4%
Wholesale Trade	5	0.2%
Retail Trade	17	0.7%
Transportation and Warehousing	21	0.9%
Finance and Insurance	6	0.3%
Educational Services	171	7.5%
Health Care and Social Assistance	20	0.9%
Real Estate and Rental and Leasing	4	0.2%
Public Administration	186	8.2%
Other Services (except Public Administration)	22	1.0%
Utilities	73	3.2%
Administrative and Support, Waste Management and Remediation Services	63	2.8%
Other	721	31.7%
Total	2,275	100%



## APPENDIX C: GLOSSARY OF KEY TERMS

### ENVIRONMENTAL EMPLOYMENT

Environmental employment is defined as work or business activities related to one of three sectors: environmental protection, conservation and preservation of natural resources, and environmental sustainability. These sectors are part of the National Occupational Standards (NOS) for environmental employment, developed by ECO Canada.

### ENVIRONMENTAL PRACTITIONER

The working definition of environmental practitioners included individuals who spend all, most, or part of their time on environmental activities.

An environmental practitioner is any person whose job responsibilities are associated with:

- Environmental Protection (e.g. air, water and land quality, waste management, restoration and reclamation, human and environmental health and safety, and environmental protection management);
- Conservation and Preservation of Natural Resources including the prevention and control of pollution (e.g. fishery, wildlife, forestry, agriculture, mining, energy, parks and natural reserves, and natural resource management);
- Environmental Sustainability (e.g. education, research and development, policy and legislation, communications and public awareness, and sustainable development); and
- Other environment related activities.

### POST-BACCALAUREATE DIPLOMA

Post-baccalaureate diploma includes those who have obtained a bachelor's degree and who have completed further education but who have not obtained a master's degree.

### RELOCATION

Act of moving to another city for work.

### INDUSTRIES

Names of industries included in the survey are based on the North American Industry Classification System (NAICS).

## APPENDIX D: SURVEY QUESTIONNAIRE

# Study of Environmental Practitioners in Canada

## 2005–2006 Survey



ECO CANADA

PLEASE COMPLETE THE SURVEY IF YOU WORK OR HAVE STUDIED IN THE FOLLOWING AREAS:

Air Quality	Fisheries and Wildlife	Environmental Education and Training
Water Quality	Forestry	Environmental Research & Development
Land Quality	Agriculture	Policy and Legislation
Waste Management	Mining	Communication and Public Awareness
Restoration and Reclamation	Energy	Management for Sustainability
Human and Environmental Health & Safety	Parks and Natural Reserves	Other related fields

In addition, we strongly encourage people who have worked previously in the sector or who are interested in the sector to complete this survey.

### PURPOSE OF THE STUDY

The *Study of Environmental Practitioners in Canada 2005-2006* is designed to provide information on the current and future labour supply for the environmental sector. This study will:

- Determine levels of job/career satisfaction of environmental practitioners in Canada
- Identify factors that influence the choice of career and retention in the sector
- Evaluate education and on-going training needs for environmental practitioners in Canada
- Evaluate satisfaction with ECO Canada's job board

### PRIZES

Surveys received by January 16, 2006 will be entered into a draw for prizes from R.A. Malatest & Associates Ltd. (research firm conducting the survey):

1st Prize:	Five megapixel digital camera
2nd Prize:	\$250 gift certificate
3rd Prize:	\$100 gift certificate

### CONFIDENTIALITY OF SURVEY RESPONSES

The results of the survey will be reported in aggregate form only; no individuals will be identified in the report. All information will be kept strictly confidential and will be protected by privacy legislation.

### OTHER WAYS TO RESPOND TO THIS SURVEY:

- Go to [www.eco.ca/study](http://www.eco.ca/study) to complete the survey on-line
- Call 1-888-274-1700 to respond by telephone
- Download the questionnaire at [www.eco.ca/study](http://www.eco.ca/study)
- Fax this document to 1-888-384-2774

If you have any questions concerning this survey, please feel free to contact:  
Amanda McIntyre, R.A. Malatest & Associates Ltd.  
1-800-665-5848 (Toll free) or [a.mcintyre@malatest.com](mailto:a.mcintyre@malatest.com)

Canada

This project is funded by the Government of Canada  
Sector Council Program

## SECTION A: GENERAL BACKGROUND

- A1. IN WHAT PROVINCE OR TERRITORY DO YOU LIVE?  
\_\_\_\_\_
- A2. ARE YOU ABORIGINAL (FIRST NATIONS, INUIT OR MÉTIS)?  
 Yes  No
- A3. WHAT IS YOUR GENDER?  
 Female  Male
- A4. TO WHICH AGE CATEGORY DO YOU BELONG?  
 Under 30  30-34  35-44  
 45-54  55-64  65 and over
- A5. ARE YOU EMPLOYED WITHIN THE ENVIRONMENTAL SECTOR SPECIFICALLY?  
 Yes  No
- A6. DO YOU SPEND ALL, MOST, PART, OR NONE OF YOUR WORK TIME ON ENVIRONMENTAL ACTIVITIES?  
 All  
 Most (more than 50% of your time)  
 Part (less than 50% of your time)  
 None (Skip to last page)  
 Not applicable (not employed or student) (Skip to last page)

## SECTION B: PROFESSIONAL RESOURCES FOR ENVIRONMENTAL PRACTITIONERS

- B1. ARE YOU AWARE OF ECO CANADA'S ENVIRONMENTAL JOB BOARD?  
 Yes  No (Skip to C1)
- B2. IF YOU HAVE USED ECO CANADA'S ENVIRONMENTAL JOB BOARD, WAS IT USEFUL TO YOU IN FINDING A JOB?  
 Yes  No  I have not used it

## SECTION C: EDUCATION TO WORK TRANSITIONS

- C1. WHAT IS YOUR HIGHEST LEVEL OF EDUCATION?  
 Elementary school – (Skip to C4)  Bachelor's degree  
 High school – (Skip to C4)  Post-baccalaureate diploma  
 Some post-secondary education  Master's degree  
 College or technical diploma  Doctorate degree (Ph.D)  
 Other (please specify: \_\_\_\_\_)
- C2. WHAT WAS YOUR FIELD OF STUDY?  
\_\_\_\_\_
- C3. WAS YOUR CHOSEN FIELD DURING YOUR EDUCATION RELATED TO THE ENVIRONMENT (THAT IS, PROGRAM, CONCENTRATION, OR EMPHASIS)?  
 Yes  No

- C4. ARE YOU AN IMMIGRANT TO CANADA?**
- Yes
  - No (Skip to C10)
- C5. DID YOU RECEIVE YOUR POST-SECONDARY EDUCATION OUTSIDE OF CANADA BEFORE IMMIGRATING TO CANADA?**
- Yes
  - No (Skip to C10)
- C6. HOW LONG HAVE YOU BEEN IN CANADA?**
- \_\_\_\_\_ Years
- C7. HOW LONG DID IT TAKE YOU TO FIND A JOB RELATED TO THE ENVIRONMENT AFTER ARRIVING IN CANADA?**
- \_\_\_\_\_ Years
- I was offered employment before immigrating
  - Not applicable, did not find a job related to my field
- C8. SINCE MOVING TO CANADA, WHAT DIFFICULTY, IF ANY, DID YOU EXPERIENCE IN FINDING EMPLOYMENT RELATED TO YOUR FIELD? (CHECK ALL THAT APPLY)**
- No difficulty
  - Difficulty getting hired due to a lack of experience
  - Could not find a job in my field
  - Lack of information on the industry
  - No jobs in my geographical area
  - Not qualified because of education level (ex.: did not have bachelor's degree)
  - Not qualified because of field of study (ex.: did not have an engineering degree)
  - Language difficulties
  - Non-recognition of foreign credentials
  - Did not have contacts
  - Other (please specify: \_\_\_\_\_)
- C9. SINCE MOVING TO CANADA, DID YOU RELOCATE TO ANOTHER CITY IN ORDER TO FIND A JOB?**
- Yes, within the province only
  - Yes, to another province
  - No

SKIP TO SECTION D

- C10. HOW LONG DID IT TAKE FOR YOU TO FIND A JOB RELATED TO YOUR FIELD AFTER YOU COMPLETED YOUR FORMAL EDUCATION? IF YOU HAVE COMPLETED MORE THAN ONE PROGRAM, PLEASE RESPOND WITH RESPECT TO YOUR MOST RECENT EXPERIENCE.**
- \_\_\_\_\_ Years
- Was offered employment while I was in school
  - Not applicable, did not find a job related to my field
- C11. WHAT DIFFICULTY, IF ANY, DID YOU EXPERIENCE IN FINDING EMPLOYMENT RELATED TO YOUR FIELD? (CHECK ALL THAT APPLY)**
- No difficulty
  - Difficulty getting hired due to a lack of experience
  - Could not find a job in my field

(more options on next page)

- Lack of information on the industry
- No jobs in my geographical area
- Not qualified because of education level (ex.: did not have bachelor's degree)
- Not qualified because of field of study (ex.: did not have an engineering degree)
- Language difficulties
- Non-recognition of foreign credentials
- Did not have contacts (networking)
- Other (please specify: \_\_\_\_\_)

**C12. DID YOU RELOCATE TO ANOTHER CITY IN ORDER TO FIND A JOB?**

- Yes, within the province only
- Yes, to another province
- No

## SECTION D: PROFESSIONAL DEVELOPMENT

**D1. HAVE YOU GONE BACK TO SCHOOL SINCE STARTING YOUR CAREER TO COMPLETE A DEGREE, DIPLOMA, OR CERTIFICATE?**

- Yes
- No (Skip to D4)

**D2. IF YES, WHAT PROGRAM DID YOU COMPLETE AFTER STARTING YOUR CAREER? PLEASE RESPOND WITH RESPECT TO YOUR MOST RECENT EXPERIENCE.**

- University degree
- University certificate
- Other (please specify: \_\_\_\_\_)
- College diploma
- College certificate

**D3. WHY DID YOU DECIDE TO TAKE FURTHER POST-SECONDARY EDUCATION? (CHECK ALL THAT APPLY)**

- Insufficient jobs in the area in which I was originally trained
- Wished to further my career (example: for promotion or advancement)
- Wanted to switch to an environmental field
- Move towards technical position
- Move towards management position
- Other (please specify: \_\_\_\_\_)

**D4. ON AVERAGE, HOW MANY JOB-RELATED TRAINING COURSES DO YOU TAKE PER YEAR?**

- \_\_\_\_\_ Courses       None (Skip to D7)

**D5. WHY DID YOU DECIDE TO TAKE FURTHER TRAINING? (CHECK ALL THAT APPLY)**

- Needed more technical skills
- Needed greater management or business skills
- To update your skills
- To get a promotion within your organization
- As a result of a performance evaluation by employer
- Required by employer (example: safety, regulations, first aid)
- Required to maintain your professional designation
- Employer provided incentives for professional development
- Wished to further your career
- Personal learning
- Other (please specify: \_\_\_\_\_)

**D6. HOW WAS THE TRAINING DELIVERED AND WHICH DID YOU PREFER? PLEASE CHECK ALL TRAINING TYPE YOU HAVE USED AND IDENTIFY THE OPTION YOU PREFERRED.**

USED	PREFERRED (select one)	TYPE OF TRAINING
<input type="checkbox"/>	<input type="checkbox"/>	University classroom
<input type="checkbox"/>	<input type="checkbox"/>	Online course through a university
<input type="checkbox"/>	<input type="checkbox"/>	College or technical institute classroom
<input type="checkbox"/>	<input type="checkbox"/>	On-line course through a college or technical institute
<input type="checkbox"/>	<input type="checkbox"/>	Private training institute
<input type="checkbox"/>	<input type="checkbox"/>	In-house by company staff
<input type="checkbox"/>	<input type="checkbox"/>	In-house by external trainer
<input type="checkbox"/>	<input type="checkbox"/>	Through professional association
<input type="checkbox"/>	<input type="checkbox"/>	Other (please specify: _____)

**D7. WHAT DO YOU SEE AS THE MAJOR BARRIERS IN TERMS OF TAKING JOB-RELATED TRAINING COURSES? (CHECK ALL THAT APPLY)**

- Lack of time outside of working hours
- Lack of programs offered in the evening
- Lack of programs offered in the region
- Lack of financial support from employer
- Not able to pay the training fees
- Employer will not allow time away from work
- No interest
- Poor quality of training offered
- Do not believe that further education will increase your career prospects
- No barrier
- Other (please specify: \_\_\_\_\_)

**D8. WHAT PROFESSIONAL DESIGNATIONS DO YOU POSSESS? (CHECK ALL THAT APPLY).**

- |  |                                    |   |
|--|------------------------------------|---|
| <input type="checkbox"/> A.Sc.T.                       | <input type="checkbox"/> C.E.T.    | <input type="checkbox"/> C.Tech             |
| <input type="checkbox"/> CCEP (Skip to E1)             | <input type="checkbox"/> CEA       | <input type="checkbox"/> CEPIT (Skip to E1) |
| <input type="checkbox"/> CRSP                          | <input type="checkbox"/> MCIC      | <input type="checkbox"/> P.Ag.              |
| <input type="checkbox"/> P.Biol.                       | <input type="checkbox"/> P.Eng.    | <input type="checkbox"/> P.Geol.            |
| <input type="checkbox"/> QEP                           | <input type="checkbox"/> R.P.Biol. | <input type="checkbox"/> RET                |
| <input type="checkbox"/> RPF                           | <input type="checkbox"/> LLB       |   |
| <input type="checkbox"/> Other (please specify: _____) |                                    |   |

**D9. IF YOU ARE NOT A CCEP (CANADIAN CERTIFIED ENVIRONMENTAL PRACTITIONER), PLEASE PROVIDE THE REASON. (CHECK ALL THAT APPLY)**

- |  |   |
|--|---|
| <input type="checkbox"/> Already have a professional designation | <input type="checkbox"/> Not required by employer       |
| <input type="checkbox"/> Unaware of the certification            | <input type="checkbox"/> No time                        |
| <input type="checkbox"/> Fees                                    | <input type="checkbox"/> Not qualified                  |
| <input type="checkbox"/> Not working in the environmental sector | <input type="checkbox"/> I don't have enough experience |
| <input type="checkbox"/> Other (please specify: _____)           |   |

## SECTION E: ATTRACTION AND RETENTION OF ENVIRONMENTAL PRACTITIONERS

**E1A. DID YOU ELECT TO WORK IN A CAREER RELATED TO THE ENVIRONMENT?**

- Yes
- No, I am in the environmental sector by circumstance (Skip to E2)

**E1B. PLEASE INDICATE HOW IMPORTANT EACH OF THE FOLLOWING WAS TO YOU IN TERMS OF YOUR DECISION TO WORK IN A CAREER RELATED TO THE ENVIRONMENT. IDENTIFY YOUR TOP THREE, 1 BEING MOST IMPORTANT.**

- |  |   |
|--|---|
| <input type="checkbox"/> Desire to improve the environment               | <input type="checkbox"/> Salary / Compensation        |
| <input type="checkbox"/> Opportunities for career advancement            | <input type="checkbox"/> Seasonality of work          |
| <input type="checkbox"/> Working outdoors                                | <input type="checkbox"/> Variety of jobs and duties   |
| <input type="checkbox"/> Opportunities to work in rural and remote areas | <input type="checkbox"/> Influential teacher          |
| <input type="checkbox"/> Friend or relative in the sector                | <input type="checkbox"/> Image of particular employer |
| <input type="checkbox"/> Other (please specify: _____)                   |   |

**E2. OVERALL, HOW SATISFIED ARE YOU WITH THE FOLLOWING ASPECTS OF YOUR CURRENT JOB?**

	VERY DISSATISFIED	SOMEWHAT DISSATISFIED	NEITHER SATISFIED NOR DISSATISFIED	SOMEWHAT SATISFIED	VERY SATISFIED	DON'T KNOW/ NO OPINION
A) Learning on the job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B) Mentoring by senior staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C) Opportunities for career advancement (promotion)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
D) Salary	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E) Alternate compensation (ex.: Bonus, Stock options)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
F) Pension plan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
G) Benefits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
H) Job security	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I) Flexible working hours	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
J) Overtime work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
K) Seasonality of work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
L) Safety on the job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
M) Employer-funded training	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
N) Image of the company	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
O) Amount of responsibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
P) Management decisions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q) Relationship with co-workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
R) Working conditions and facilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
S) Overall job satisfaction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
T) Other (please specify: _____ )	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>





## SECTION F: EMPLOYMENT AND CAREER PROFILE

**F1. IN WHAT INDUSTRY ARE YOU EMPLOYED? (SELECT ONLY ONE)**

- Agriculture, Forestry, Fishing, and Hunting
- Information and Cultural Industries
- Professional, Scientific, and Technical Services
- Mining and Oil and Gas Extraction
- Management of Companies and Enterprises
- Accommodation and Food Services
- Arts, Entertainment and Recreation
- Public Administration
- Other Services (except Public Administration)
- Real Estate and Rental, and leasing
- Utilities
- Administrative and Support, Waste Management and Remediation
- Other (please specify: \_\_\_\_\_)
- Construction
- Manufacturing
- Wholesale Trade
- Retail Trade
- Transportation and Warehousing
- Finance and Insurance
- Educational Services
- Health Care and Social Assistance

**F2. HOW LONG HAVE YOU BEEN IN THE WORKFORCE?**

\_\_\_\_\_ Years

**F3. WHAT IS YOUR CURRENT EMPLOYMENT STATUS?**

- Full-time (30 hours or more per week) permanent
- Part-time (less than 30 hours per week) permanent
- Seasonal
- Self-employed/Contract (full-time)
- Self-employed/Contract (part-time)

**F4. HOW LONG HAVE YOU BEEN EMPLOYED BY YOUR CURRENT EMPLOYER (OR SELF-EMPLOYED, IF APPROPRIATE)?**

\_\_\_\_\_ Years

**F5. APPROXIMATELY HOW MANY EMPLOYEES ARE CURRENTLY EMPLOYED AT THE LOCATION WHERE YOU WORK? (INCLUDE FULL- AND PART-TIME STAFF)**

\_\_\_\_\_ Employees

**F6. DO YOU WORK IN THE:**

- Private sector
- Public sector
- Not-for-profit sector

**F7. WHAT IS YOUR LEVEL OF RESPONSIBILITY?**

- Junior (ex.: Coordinator, Junior Technician)
- Intermediate (ex.: Director, Project Manager, Senior Biologist)
- Executive (ex.: CEO, President, Vice President)

**F8. PLEASE DESCRIBE YOUR PRIMARY OCCUPATION (EX.: MARINE BIOLOGIST, GIS SPECIALIST).**

\_\_\_\_\_  
\_\_\_\_\_

**F9. PLEASE DESCRIBE YOUR JOB DUTIES (EX.: BY-LAW ENFORCEMENT, COLLECT SAMPLES OF WATER FOR ANALYSIS, PROJECT MANAGEMENT ETC.).**

\_\_\_\_\_  
\_\_\_\_\_

**F10. IN WHICH OF THE FOLLOWING AREAS RELATED TO THE ENVIRONMENT ARE YOU EMPLOYED?  
(CHECK ALL THAT APPLY)**

- Air Quality
- Land Quality
- Restoration and Reclamation
- Fisheries and Wildlife
- Agriculture
- Environmental Protection Management
- Education and Training
- Research and Development
- Natural Resources Management
- Communication and Public Awareness
- Other (please specify: \_\_\_\_\_)
- Water Quality
- Waste Management
- Human and Environmental Health & Safety
- Forestry
- Mining
- Energy
- Parks and Natural Reserves
- Policy and Legislation
- Management for Sustainable Development

**F11. WHAT IS YOUR CURRENT SALARY LEVEL?**

- Under \$20,000
- \$20,001 to \$40,000
- \$40,001 to \$60,000
- \$60,001 to \$80,000
- \$80,001 to \$100,000
- \$100,001 and above
- No response

## LAST SECTION: INTEREST IN FURTHER ACTIVITIES

### ACCESSING THE RESULTS

A summary report will be made available on the ECO Canada website in 2006. Do you want us to notify you when the report is available?

Yes (Please provide contact information below)       No

### FOCUS GROUP

As part of this project we are also planning to conduct focus group research regarding human resource issues among environmental practitioners. The meetings will be held in Halifax, Montreal, Toronto, Edmonton, and Vancouver, in April 2006. Would you be willing to participate in one of the focus group meetings?

Yes (Please provide contact information below)       No

### FURTHER INFORMATION AND FUTURE RESEARCH

ECO Canada, from time to time, provides information to environmental practitioners. Are you interested in receiving such information, or being contacted as part of future research projects?

Yes (Please provide contact information below)       No

### DRAW FOR PRIZES

To enter the draw for prizes (or to provide your contact information), please complete the information below.

NAME: \_\_\_\_\_  
 PHONE: \_\_\_\_\_  
 E-MAIL: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_  
 CITY: \_\_\_\_\_ PROVINCE: \_\_\_\_\_ POSTAL CODE: \_\_\_\_\_

(NOTE: This information will be kept strictly confidential and will only be used to authenticate your participation in the survey)

**THANK YOU FOR COMPLETING THIS IMPORTANT SURVEY!**

**Please fax this document to 1-888-384-2774**

If you have any questions concerning this survey, please feel free to contact:

Amanda McIntyre, R.A. Malatest & Associates Ltd.

1-800-665-5848 (Toll free) or a.mcintyre@malatest.com



