

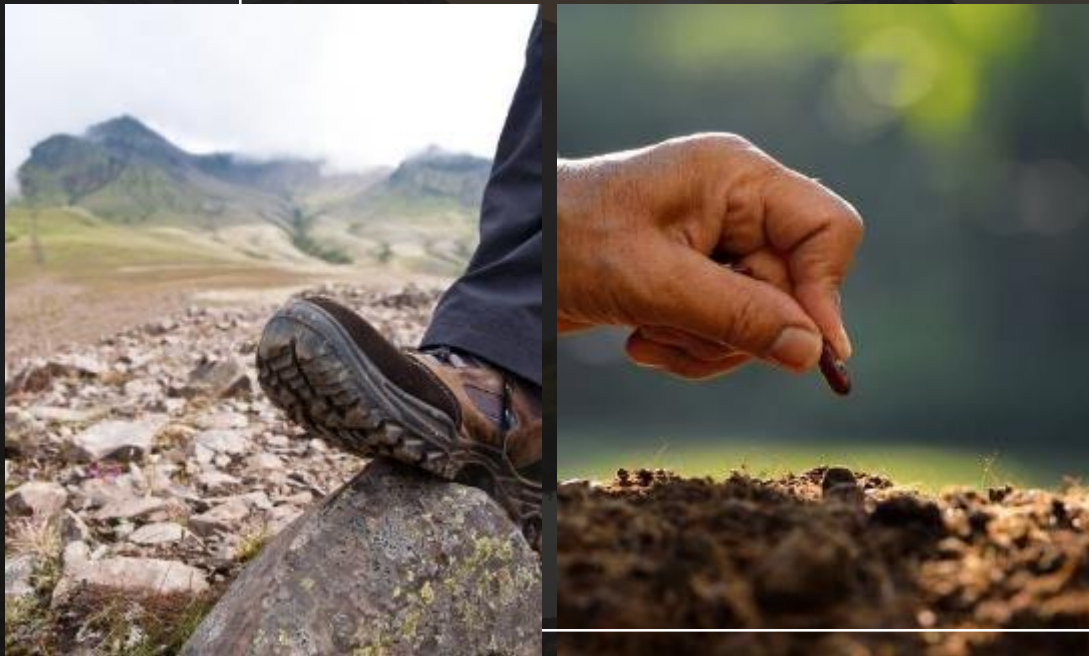


LABOUR MARKET INFORMATION

HR Solutions to support corporate growth

Presentation at RemTech 2021

About ECO Canada



ECO Canada is the steward for the Canadian environmental workforce across all industries.



Our vision is to build the world's leading environmental workforce.



Our services hit every touch point within the environmental workforce—from labour market intelligence to employment programs; from certification to skills development.



Our efforts promote and drive responsible, sustainable, economic growth to ensure that environmental care and best practice are a priority.

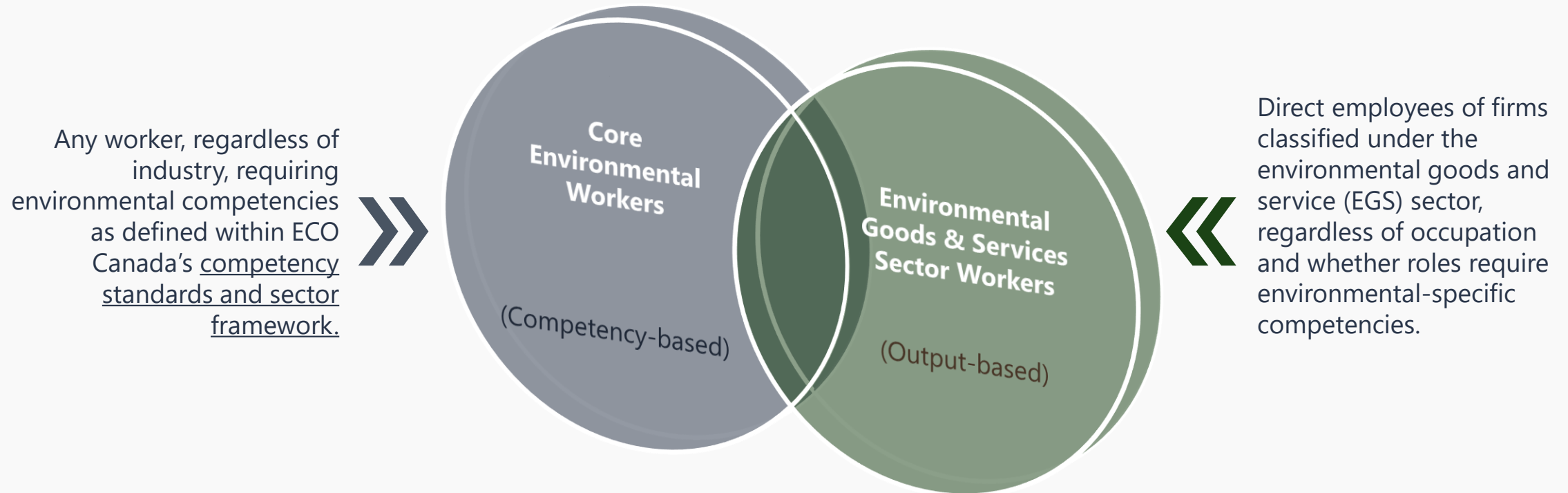


ENVIRONMENTAL WORKERS DEFINED

THE ENVIRONMENTAL WORKFORCE DEFINED:

Two Classification Streams

The environmental workforce is broad and includes workers across various industries and occupations that drive or support the goals of **environmental protection, resource management, and sustainability**. Our definition and research encompass two types of workers:



A Sustainability Manager working in a mining company and an Accountant employed in a cleantech company are included in this definitional framework. An Impact Assessment Lead in an environmental consulting firm is both a core environmental worker and an EGS sector worker.

THE ENVIRONMENTAL WORKFORCE DEFINED:

Environmental Sectors or Specializations

Workers are also classified according to their environmental function, goal or specialization, as defined by ECO Canada's Sector Model. A worker or role could be mapped to more than one subsector.

- A. Environmental Protection:** involves activities aimed at protecting the health of humans and the ecosystem through pollution prevention, waste minimization, remediation, rehabilitation, and reclamation in the areas of air, water and land. This sector also includes human health and safety, where these are dependent on the quality of the environment.
- B. Resource Management:** involves activities aimed at integrating environmental and economic decisions with principles of stewardship in the use and management of natural resources. This sector deals with integrating biological and ecological aspects of the environment with the social and economic needs of society.
- C. Environmental Sustainability:** involves activities aimed at promoting a healthy environment, for the benefit of society, now and into the future. These activities centre on developing, disseminating and applying knowledge in support of Sectors A & B.



EMPLOYMENT

Drivers & Trends

The convergence of market, regulatory, social and technological factors will influence the number and type of environmental workers needed today and in the future.

The main trends employers expect will impact the number and type of environmental workers needed in the future:





NATIONAL OUTLOOK – KEY FINDINGS

HIGHLIGHTS

The Future of Green Jobs

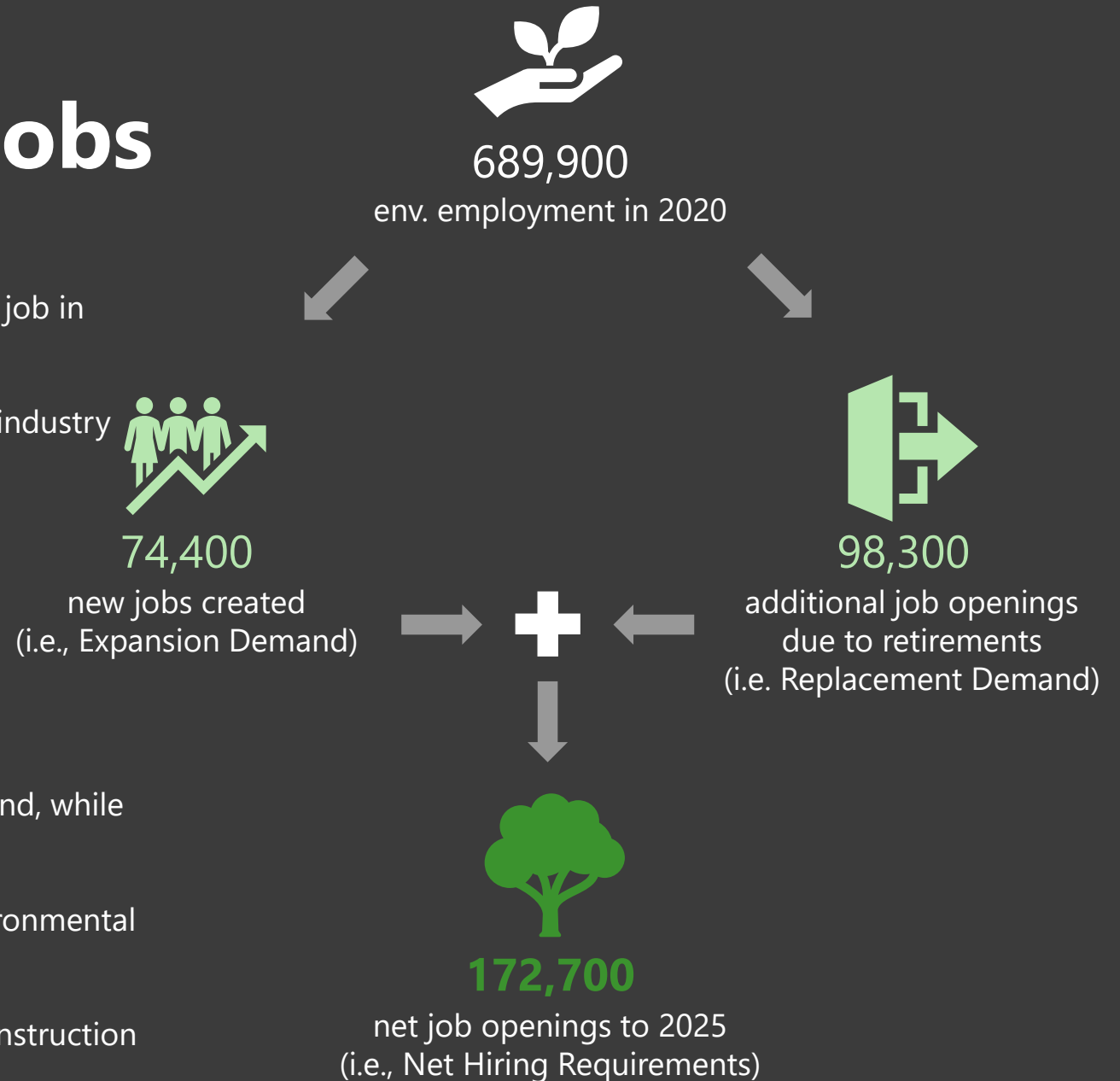
About **1 in 26 workers** in Canada (**689K workers**) was in a green job in 2020, up from 1 in 30 in 2019.

- Environmental workers were present in every Canadian region, industry and practically every occupation.
- Green talent is needed in a variety of environmental fields, such as Resource Management and Sustainability.

Job growth and retirements will account for **173K net environmental job openings by 2025**—equivalent to 25% of 2020 employment levels.

- About 43% of net job openings will stem from expansion demand, while 57% will be due to replacement demand.
- About 37% of the hiring needs (108K jobs) will be for core environmental workers.

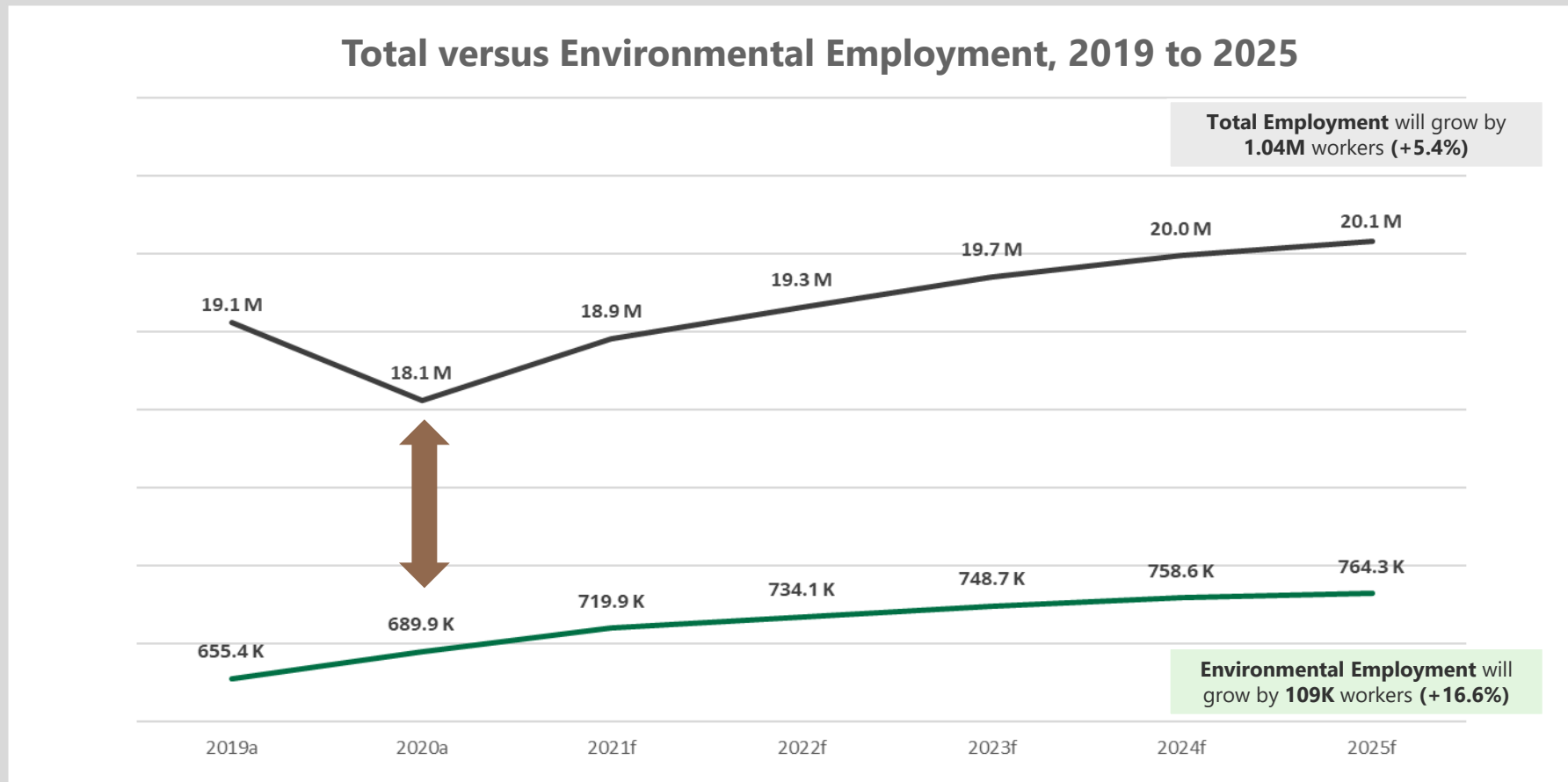
Shortages are expected for many core occupations, including Construction managers, millwrights and industrial mechanics.



EMPLOYMENT OUTLOOK

A Greener Economic Recovery for Canada

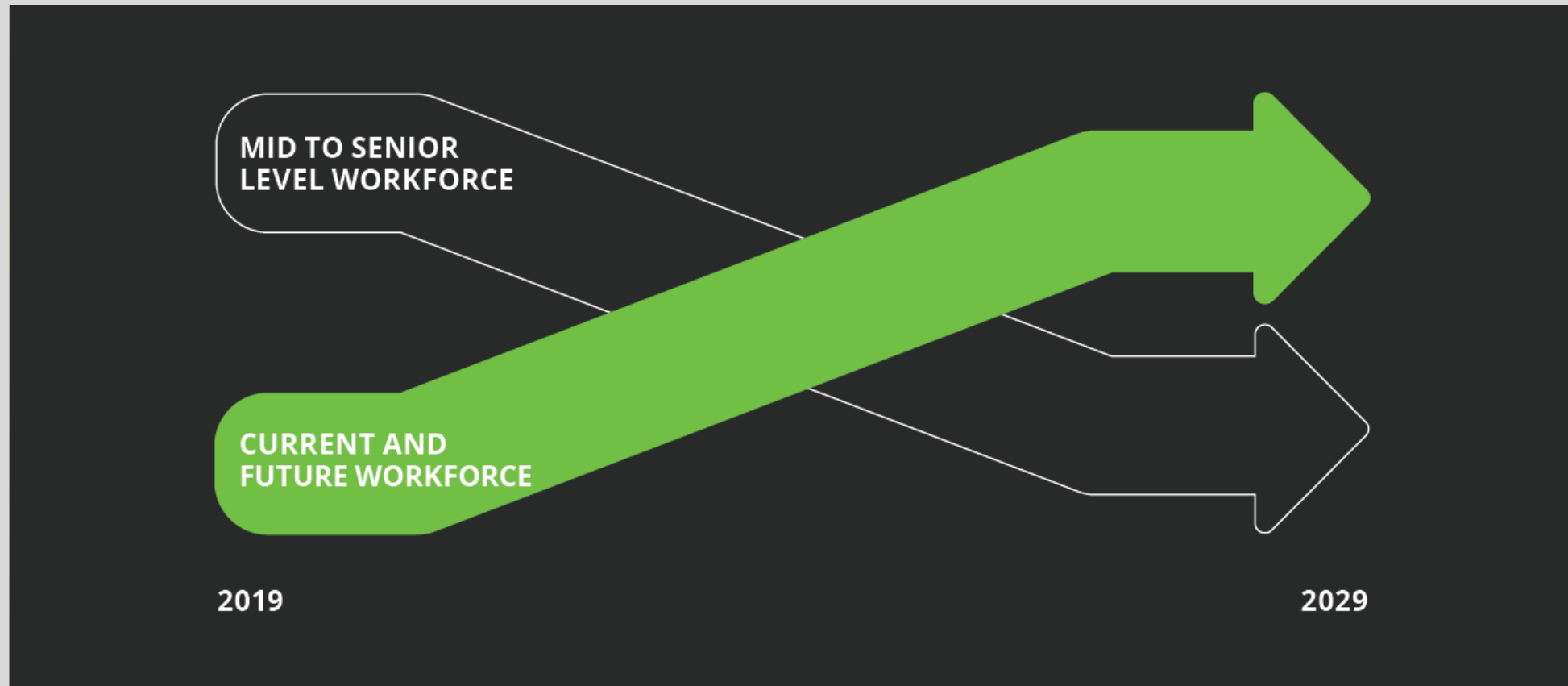
While Canada's employed labour force shrunk in 2020, the environmental sector added **35K** net new jobs (5% growth). An additional **74K** net environmental job openings will be created between 2020 and 2025—resulting in an **11% growth** from 2020 employment levels.



PROJECTED RETIREMENTS FOR

Next 10 Years

The larger opportunity for environmental workers will come from the gradual retirement of an estimated **183,400 workers** (30% of 2019 employment), particularly those in mid to senior level roles.



TALENT GAPS

Critical Shortages Expected

The following occupations are projected to experience a shortage of environmental workers across Canada due to (1) wider supply/demand gaps, (2) post-secondary education pre-requisites, and (3) environmental-specific competency requirements:



Legislators and senior management



Engineering inspectors and regulatory officers & Inspectors in public and environmental health and occupational health and safety; Non-destructive testers and inspection technicians



Utilities equipment operators and controllers (incl. Water and wastewater treatment plant operators)



Physical and life sciences professionals



Construction managers; Construction millwrights and industrial mechanics



Electrical and electronics engineers; Aerospace engineers & Other professional engineers, n.e.c.



Architects; Landscape architects; Urban and land use planners & Land surveyors



Forestry technologists and technicians & Conservation and fishery officers; Agricultural and fish products inspectors



Managers in manufacturing and utilities



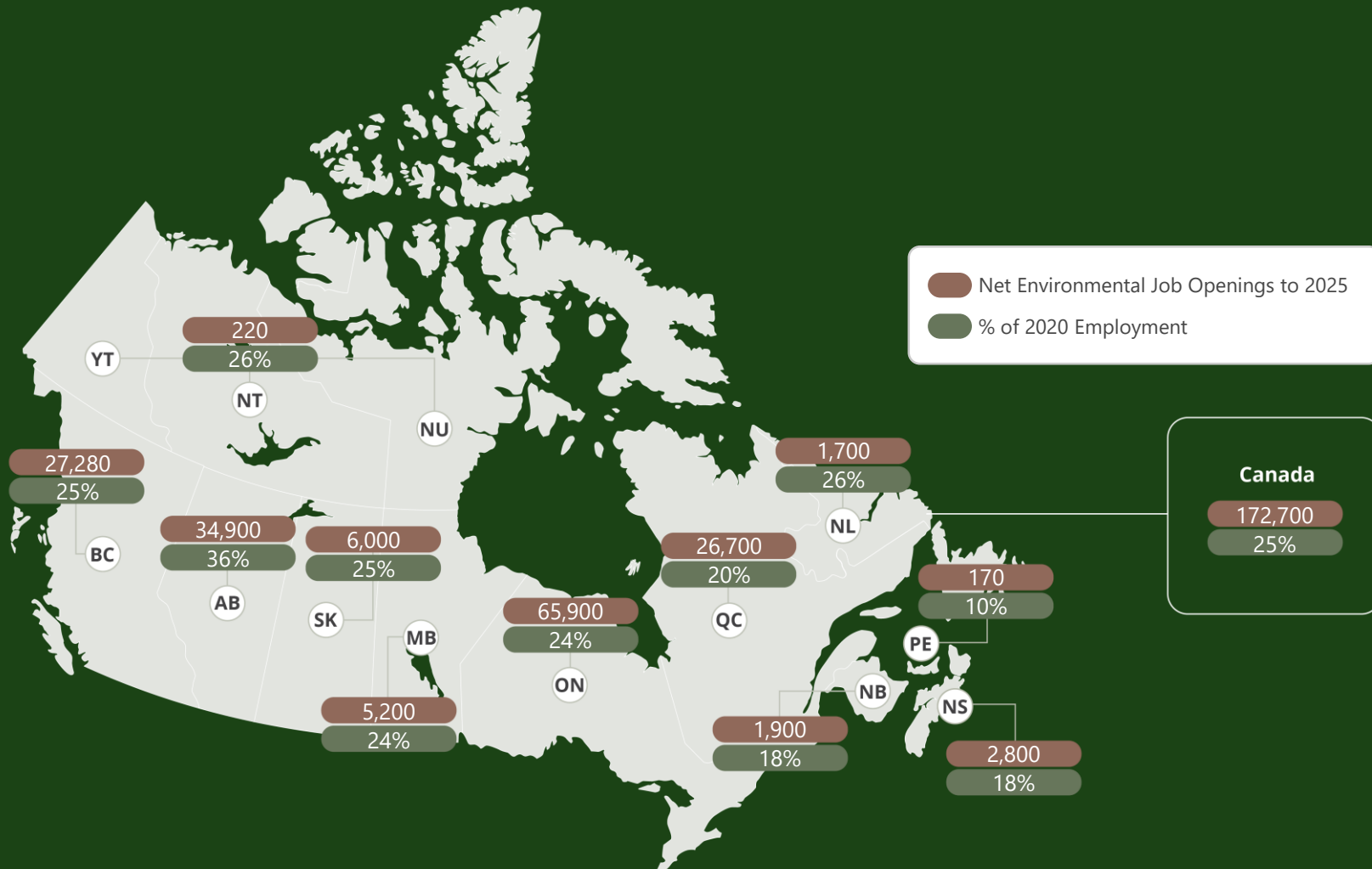
Contractors and supervisors, mining, oil and gas



ALBERTA HIGHLIGHTS

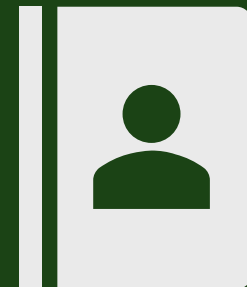
REGIONAL HIGHLIGHTS

Green Job Opportunities in Every Region

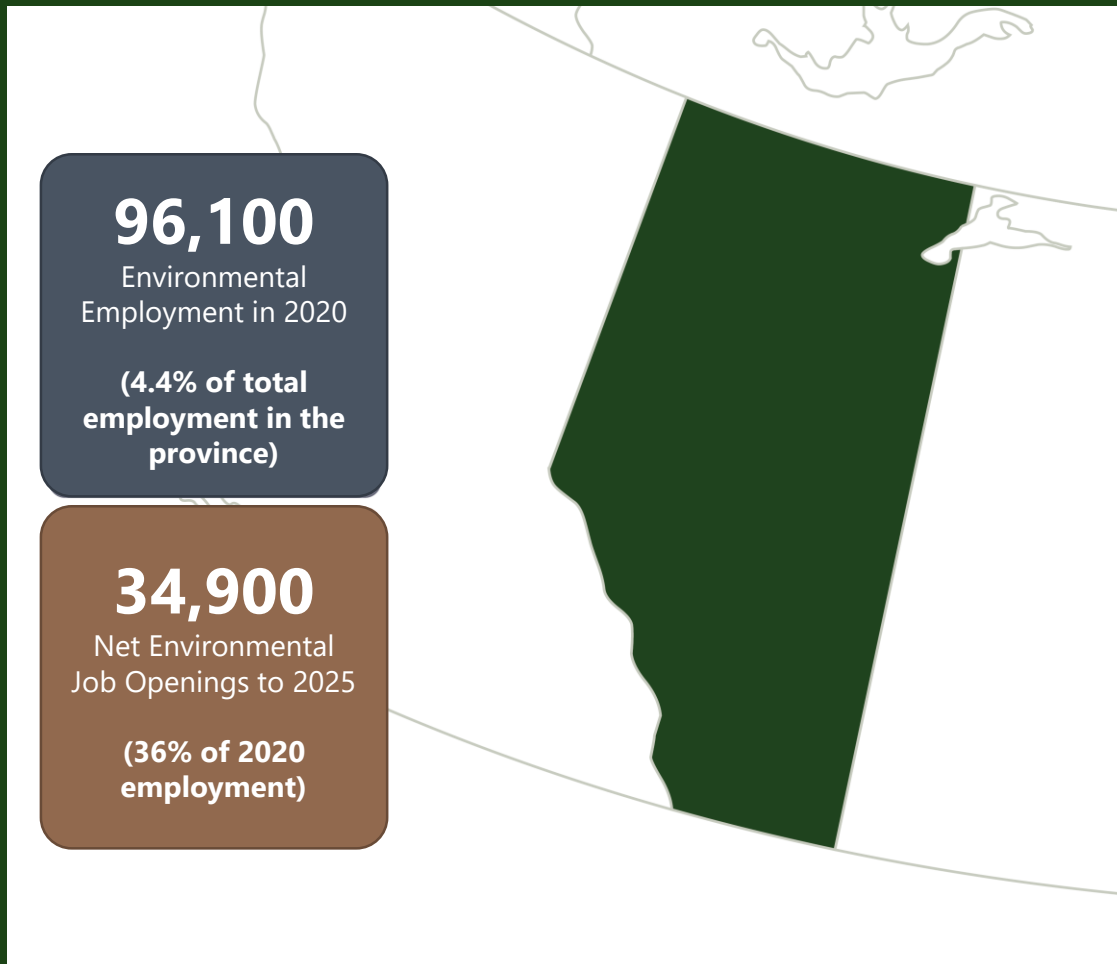


Every province and territory in Canada will be looking for environmental workers over the next five years.

Opportunities will result from jobs in growth sectors, as well as openings created by retiring workers.



The Future of Green Jobs



- Alberta’s employed labour force shrunk by **8% (or 178,600 jobs)** in 2020, driven by the COVID-19 pandemic, global recession, and oil price collapse.
- The province’s environmental workforce was also negatively impacted by this unprecedented economic crisis, with about **3,800 net environmental job losses (or 4% decline)** in 2020 across various industries.
 - Although green jobs were also lost, the proportion of environmental to total employment grew from 4.3% in 2019 to **4.4% in 2020**.
- Alberta’s economy is rebounding. All in all, the province could add 353,500 new jobs in the next five years—reflecting a 16% growth. Nearly **6% or 34,900** of the total new jobs will be for an environmental role.
- Net hiring for green workers will be due to,
 - 20,600 new jobs created (21% growth from 2020 employment levels)
 - 14,300 retiring workers

Nearly **7k** new environmental jobs were advertised online in Alberta in Q2 2021—the highest quarterly count ever recorded for the province.

Core Environmental Workers

Core environmental workers are a key to advancing responsible and sustainable economic growth. These workers have invested and prepared for the roles they are in by honing environmental-specific knowledge and skills, including the ability to integrate multiple disciplines and work across industries. Approximately **42%** of net environmental hiring requirements by 2025 (**or 40,000 jobs**) in Alberta will be for core workers.

Top Occupations with Core Environmental Workers

...by EnviroShare

All occupations (4.4%)

Meteorologists and climatologists (64.2%)

Water and waste treatment plant operators (58.7%)

Forestry professionals (58.3%)

...by Environmental Employment in 2020

All occupations (96,100 workers)

Civil engineers (4,260)

Petroleum engineers (3,410)

Inspectors in public and environmental health and occupational health and safety (3,120)

...by Net Environmental Job Openings by 2025

All occupations (34,900 jobs)

Civil engineers (2,590)

Inspectors in public and environmental health and occupational health and safety (1,460)

Geoscientists and oceanographers (1,450)

IMPACTING BOTH SIDES

What This Means



Employers

- Succession planning
- Investing in skill development and new talent
- Retention strategies/benchmark
- Adapting business models and products
- Utilize HR funding

Practitioners

- Lifelong learning is key
- Opportunities to advance , honing power skills
- Work spans across industries
- Environmental practice is in the public view – they need to trust in competencies



KEY HR SERVICES FROM ECO CANADA

Alberta (2020 Guide)

Alberta has the 3rd largest environmental workforce in Canada.

In 2019, the median annual salary within Alberta-based organizations was 11% higher than the national compensation for environmental workers.

Category	Annual Salary (percentiles)		
	25 th	50 th	75 th
Canada	45,000	60,000	80,000
Alberta	50,000	66,560	94,000
Top Occupations			
Business and Operations Occupations		80,000	
Engineering Technologists and Technicians		79,000	
Environmental Generalist		75,000	
Top Industries			
Utilities		90,000	
Manufacturing		83,000	
Educational Services		70,000	
Top Environmental Focus Areas			
Water Quality Protection		75,000	
Air Quality Protection		73,500	
Natural Resource Management		70,000	

Alberta (cont.)

Category	Annual Salary (percentiles)		
	25 th	50 th	75 th
By Type of Organization			
Private Sector		69,750	
Public Sector		65,000	
Not-for-Profit and Charity		52,500	
By Size of Organization			
1-9 Employees		55,000	
10-49 Employees		60,000	
50-199 Employees		71,500	
200+ Employees		75,000	
By Job Level			
Junior		50,000	
Intermediate		69,250	
Senior		94,000	

Site Assessment, Remediation and Reclamation (2020 Guide)

In Canada, workers perform site assessment, remediation, restoration, and reclamation services for a variety of different development projects. Traditionally, most work involved Phase 1 or Phase 2 Environmental Site Assessments (ESAs) to determine whether environmental contamination exists at a site and the extent of contamination. After the assessment, workers may complete remediation services on the site to clean or remove the contamination, followed by restoration services to return the site to its original condition and reclamation services to return the land to a natural or agricultural landscape.

A multidisciplinary labour force of engineers, scientists, foresters and technical specialists work in design, management, compliance, communications, environmental health and safety and land use.

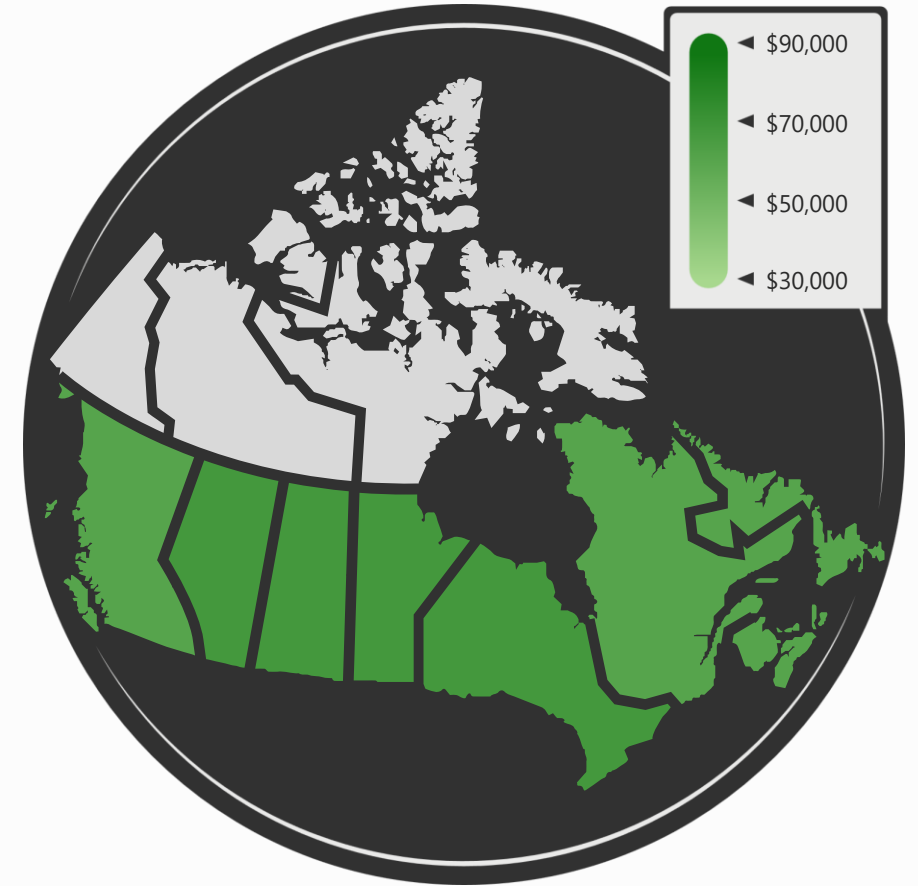
Category	Annual Salary (percentiles)		
	25 th	50 th	75 th
All Environmental Focus Areas	45,000	60,000	80,000
Site Assessment, Remediation and Reclamation	50,000	65,000	80,000
By Job Level			
Junior		50,000	
Intermediate		63,206	
Senior		80,000	
By Type of Organization			
Private Sector		65,000	
Public Sector		68,702	
Not-for-Profit and Charity		48,000	
By Size of Organization			
1-9 Employees		55,000	
10-49 Employees		60,000	
50-199 Employees		64,000	
200+ Employees		70,000	

Employment Trends

In 2019, the median annual salary for Site Assessment, Remediation and Reclamation was **8% higher** than the national compensation for environmental workers.

Site Assessment, Remediation and Reclamation (cont.)

Category	Annual Salary (percentiles)		
	25 th	50 th	75 th
By Region			
British Columbia		61,000	
Alberta		66,780	
Saskatchewan and Manitoba		68,359	
Ontario		65,000	
Quebec		60,000	
Atlantic Canada		60,000	
Canadian Territories		---	
Top Occupations			
Parks, Enforcement and Wildlife Conservation Occupations		75,750	
Engineers		75,000	
Environmental Generalists		70,000	
Top Industries			
Finance and Insurance, Real Estate and Rental and Leasing		77,500	
Mining and Oil & Gas Extraction		73,000	
Public Administration		69,284	



Hiring Challenges

Employers are challenged with finding the right candidates for **54%** of environmental positions in the area of Site Assessment, Remediation and Reclamation.

OTHER INSIGHTS

Skills in Demand

Technical competencies may be needed to gain employment, but soft skills are essential in keeping a job and growing in a career.

Knowledge and Technical Skills



Industry Knowledge



Public Awareness



Policy and Legislation



Education & Training



Research and Development

Soft Skills



Project Management



Leadership



Communication



Negotiation &
Conflict Resolution



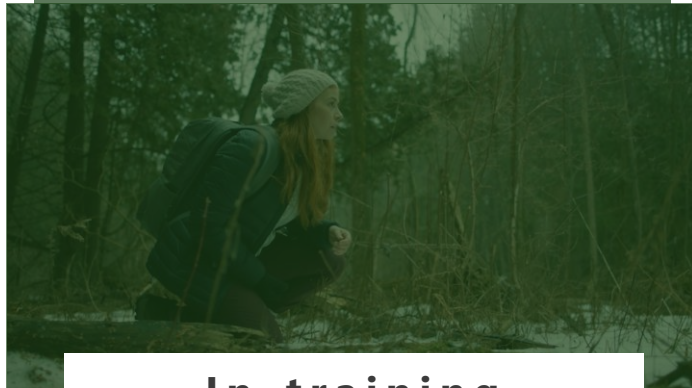
Problem Solving



EP | DESIGNATION

Environmental Practice validation based on over 300 core competencies

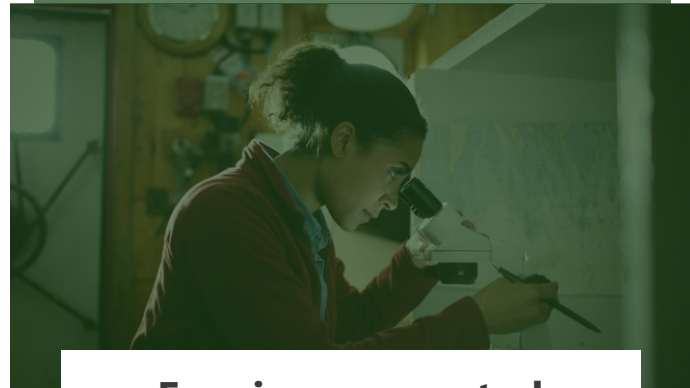
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**In-training
Professional**

The next generation of
leaders in the environmental sector

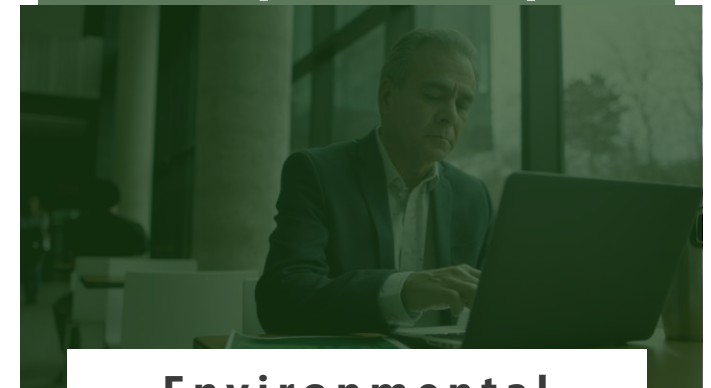
EP



**Environmental
Professional**

Distinguish specialized knowledge
and pledge to safeguard
stakeholder trust

**EP(CEA) or
EP(EMSLA)**



**Environmental
Auditor**

Get recognized as a leader for the
important evaluation
work you do



Wage Subsidies



- Full time or student funding
 - Reimbursement of salary cost
 - Reimbursement of training cost
 - Job must directly or indirectly support the environment
-
- Funded to ECO Canada from Government of Canada with a purpose of creating jobs and building careers.
 - Short term economic recovery
 - Long term meet the sector growth and retirement replacements



CONTACT US

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ECO Canada relies on employees and partners from Vancouver to Windsor to Montreal and Halifax, as well as our Territories. Visit our website or contact us for more information.



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