



July 2018

# CAREER PATHWAYS: FORESTRY



**Bulkley-Nechako  
Workforce Opportunities Table**



## Sector Size and Performance

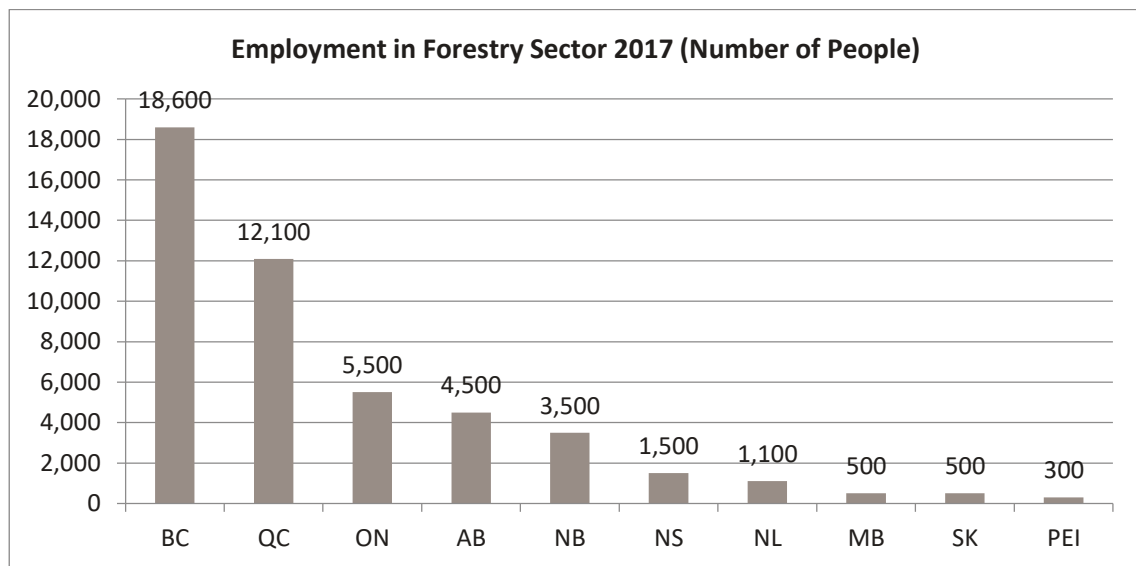
The forestry sector comprises establishments primarily engaged in logging; timber tract operations; forest nurseries; and related support activities such as transportation, reforestation, and pest control.

Canada's forestry sector contributed \$4.5 billion to Canada's overall GDP in 2016. British Columbia is the largest contributor to total forestry GDP in Canada, contributing more than \$1.9 billion (or 42%) in 2016.

British Columbia's forestry sector GDP grew year-over-year from 2012 to 2015, before dropping in 2016. However, overall the sector has grown 2.1 percent from 2012-2016.<sup>1</sup>

Approximately 18,600 people were employed in British Columbia's forestry sector in 2017. Although the amount employed in this sector has seen decreases in certain years, it has grown overall by 1,000 jobs in the last five years.

Just over 38 percent of all forestry employees in Canada are employed within British Columbia; this makes British Columbia the largest forestry sector employer out of all provinces in Canada.<sup>2</sup>



Canada's forestry sector is projected to have an average of 1,600 job openings each year over the next five years.<sup>3</sup> The Government of British Columbia is forecasting 3,100 total job openings in forestry in British Columbia over the next 10 years.<sup>4</sup>

<sup>1</sup> Statistics Canada GDP by NAICS, CANSIM Table 379-0030, 2017

<sup>2</sup> Statistics Canada Labour Force Survey Estimates by NAICS, CANSIM Table 282-0008, 2017

<sup>3</sup> Canadian Occupational Projection System, Job Opening Projects by Industry, 2015

<sup>4</sup> British Columbia Labour Market Outlook, 2017



## Careers in Forestry

There are many different careers within the forestry sector to pursue, the top ten in terms of employment in British Columbia's forestry sector include:

- Chain Saw and Skidder Operators;
- Forestry Professional
- Forestry Technologist /Technician;
- Heavy Equipment Operator;
- Logging and Forestry Labourer;
- Logging Machinery Operator;
- Logging Truck Driver;
- Managers in Natural Resource Production;
- Silviculture Technologist/ Technician;
- Supervisors for Logging and Forestry.

The median wage for positions in British Columbia's forestry sector ranges from \$23.00 to \$42.00 per hour. Forestry workers in British Columbia make a slightly higher median wage than Canada as a whole – approximately \$1.30 more per hour, on average.

## Career Progression in Forestry Sector

### **LEVEL D (*On-Job Training*):**

#### [Logging and Forestry Labourers \(NOC 8616\)](#)

- Completion of secondary school may be required.
- Completion of pre-employment safety courses may be required.
- Several weeks of formal and on-the-job training are provided.
- Workplace hazardous materials information system (WHMIS) certificate may be required.
- Chemicals application licence may be required.

Median Wages (/Hr):

BC: \$25.00

Canada \$20.00

### **LEVEL C (*Some College or Industry Specific Training/ Certification, On-Job Training*):**

#### [Transport Truck Driver \(NOC 7511\)](#)

- Completion of secondary school is usually required.
- On-the-job-training is provided.
- Completion of an accredited driver training course of up to three months duration, through a vocational school or community college, may be required.
- A Class 3 or D licence is required to drive straight-body trucks.
- A Class 1 or A licence is required to drive long combination vehicles.
- Air brake endorsement (Z) is required for drivers who operate vehicles equipped with air brakes.
- Transportation of dangerous goods (TDG) certification is required for drivers who transport hazardous products or dangerous goods.
- Additional licensing endorsement or certification may be required to drive articulated trucks.

Median Wages (/Hr):

BC: \$25.00

Canada \$21.00



### Heavy Equipment Operator (7521)

- Some secondary school education is required.
- Completion of a one- to two-year apprenticeship program or some high school, college or industry courses in heavy equipment operating combined with on-the-job training are required.
- Certification for heavy equipment operator (dozer, excavator, tractor-loader-backhoe) may be required.
- Internal company certification may be required by some employers.
- Red Seal endorsement is also available to qualified heavy equipment operators upon successful completion of the interprovincial Red Seal examination.

Median Wages (/Hr):                      BC: \$28.00                      Canada \$27.00

### Chain Saw and Skidder Operators (NOC 8421)

- Completion of secondary school may be required.
- Completion of a college program for forest workers may be required.
- Formal training in chain saw operation and several months of on-the-job training are usually provided.
- Previous experience as a logging and forestry labourer or logging machine operator may be required. Experience requirements vary depending on the type and location of woodlands operations.
- Provincial certification or a forest worker program certificate is required in some provinces.
- Workplace hazardous materials information system (WHMIS) and first aid certificates may be required.

Median Wages (/Hr):                      BC: \$28.50                      Canada \$24.00

### Silviculture and Forestry Workers (NOC 8422)

- Completion of secondary school may be required.
- Completion of a college or specialized program for silviculture workers may be required.
- Formal training in power saw operation and several months of on-the-job training are usually provided.
- Experience as a logging and forestry labourer may be required.
- A chemicals application licence is required.
- Workplace hazardous materials information system (WHMIS) and transportation of dangerous goods (TDG) certificates may be required.

Median Wages (/Hr):                      BC: \$22.98                      Canada \$21.28

## **LEVEL B (College or Apprenticeship, Some Certification, Some Experience):**

### Forestry Technologists and Technicians (NOC 2223)

- Completion of a 1-3 year college program in forestry technology or in a renewable resource program or forest ranger program is usually required.
- Registration with a regulatory body is required.
- Certification or licensing as a scaler is required for some positions.

Median Wages (/Hr):                      BC: \$24.00                      Canada \$27.00

### Supervisors for Logging and Forestry (NOC 8211)

- Completion of a 1-3 year college program for forestry technologists or technicians may be required.
- Formal company training and several months of on-the-job training are provided.
- Several years of experience in the forestry and logging industry are required.



- A chemical application licence may be required.
- An industrial first aid certificate may be required.

Median Wages (/Hr):                      BC: \$30.00                      Canada \$28.00

#### Logging Machinery Operator (NOC 8241)

- Completion of secondary school may be required.
- On-the-job training from 3-16 months is provided, depending on the complexity of machinery operated.
- Experience requirements vary depending on the complexity of machinery operated.
- Mechanical harvester may require logging experience as a chain saw and skidder operator.
- Feller buncher operators and cable yarder operators usually require 3-5 years of logging experience.
- Mechanical tree processor and loader operators usually require 1-3 years of logging experience.
- Certification as a heavy equipment operator may be required.
- Provincial air brake certification may be required depending on the type of equipment operated.
- Workplace hazardous materials information system (WHMIS) and first aid certificates may be required.

Median Wages (/Hr):                      BC: \$30.00                      Canada \$25.00

#### **LEVEL A (*Bachelor Degree or Higher, Intermediate Experience*):**

#### Forestry Professionals (NOC 2122)

- A bachelor's degree in forestry or forestry engineering is required.
- Registration with a regulatory body is required. A 2-year practicum of supervised work experience and professional examinations are usually required before registration.

Median Wages (/Hr):                      BC: \$33.65                      Canada \$35.00

#### **LEVEL O (*Management Positions - Combination of Education and Advanced Experience*):**

#### Managers in Natural Resources Production (NOC 0811)

- Forestry managers usually require a bachelor's degree in forestry science or forest engineering.
- Several years of experience in a supervisory occupation in the particular industry are usually required and may substitute for formal education requirements.

Median Wages (/Hr):                      BC: \$41.93                      Canada \$48.08



## Local Education/Training Programs

### College of New Caledonia

The College of New Caledonia is a post-secondary educational institution that serves the residents of the Central Interior of British Columbia. The college has campuses in Burns Lake, Fort St. James, Mackenzie, Prince George (main), Quesnel and Vanderhoof. It offers a range of programs including: apprenticeship trade training, certificates, diplomas, associate degrees, university transfer credit, continuing education/vocational training, and individualized training sponsored to the client's needs in the college or onsite at a location of the clients choosing. College of New Caledonia also offers a variety of online and direct digital delivery courses and programs to those within the Regional District of Bulkley Nechako. To see up-to-date programming visit: [www.cnc.bc.ca](http://www.cnc.bc.ca)

#### Relevant Programs to Forestry (Current):

[Forestry Industry Safety Training, Courses](#) – Location: Burns Lake, Mackenzie, Prince George, Quesnel

The College of New Caledonia offers forest industry safety training courses and certification that respond to community and employer needs. Courses include: BC Faller Certification; Chainsaw Safety; Environmental Management Systems; First Aid; Log Scaling and Grading; Residue and Waste Measurement; Resource Road Driving; WHMIS; WorkSafeBC Training Modules, and more.

[Driver Training, Licence](#) – Location: Burns Lake, Fort St. James, Fraser Lake, Vanderhoof

The College of New Caledonia offers commercial driver training for Class 1, 3, 4 (Restricted & Unrestricted), and 5. It also offers air brake certification.

[Heavy Equipment Operator – Logging, Certificate](#) – Location: Mackenzie

A 12-week program with intensive, hands on training in heavy equipment operation, routine maintenance of equipment, and practical field operations. The core curriculum follows Industry Training Authority guidelines. Students will receive a minimum of 10 industry recognized training certificates; 90 classroom hours; and up to 300 equipment hours on 2-3 pieces of equipment including, feller buncher, skidder, track skidder, processor, butt'n'top; forwarder.

[Natural Resources and Forest Technology, Diploma](#) – Location: Prince George

The NRFT is an intensive forestry program for those interested in meaningful work outdoors, enjoy technology and hands-on activities and want to make a positive impact on the environment. Core subject areas include: forest mensuration (determining dimensions and measurements in nature), forest protection/health (fires, insects and disease), forest operations (road building and harvesting) and silviculture (forest stand tending), and more. NRFT graduates can qualify to become Registered Forest Technologists and Registered Biology Technologists.



## Coast Mountain College (formerly Northwest Community College)

Coast Mountain College is a post-secondary education institution that serves the residents of northwest British Columbia. The college has campuses in Hazelton, Kitimat, Masset, Prince Rupert, Queen Charlotte, Smithers, and Terrace (main). It offers a range of programs including: apprenticeship trade training, certificates, diplomas, associate degrees, university transfer credit, continuing education/vocational training, aboriginal education and distance and online learning. To see up-to-date programming visit: [www.nwcc.bc.ca](http://www.nwcc.bc.ca)

Relevant Programs to Forestry (Current):

[Environmental Geoscience, Associate of Science Degree](#) – Location: Prince Rupert, Terrace

The Environmental Geoscience Specialization encompasses a broad range of disciplines that allow students to develop an understanding of Earth's related natural systems and processes. Graduates will be well versed in atmospheric, hydrological, ecological, and geological studies and may go on to find work in a variety of fields, such as mining and mineral exploration, forestry, wildlife and freshwater management, climate modelling and green energy production.

[Heavy Equipment Operator, Apprenticeship](#) – Location: Terrace

Heavy Equipment Operator program students log operator time on four pieces of heavy equipment: excavator, articulated rock truck, dozer and loader. These machines are used universally in construction, earth moving, road building, mining, and forestry operations.

## University of Northern British Columbia

The University of Northern British Columbia is a small research-intensive university that serves the residents of Northern British Columbia. The university has campuses in Fort St. John, Prince George (main), Quesnel, and Terrace. It offers a range of programs including: certificates, diplomas, undergraduate and graduate degrees. To see up-to-date programming visit: [www.unbc.ca](http://www.unbc.ca)

Relevant Programs to Forestry (Current):

[Environmental Engineering, Bachelor of Applied Science](#) – Location: Prince George

The UNBC/UBC Environmental Engineering Program is a unique, 4 1/2 year joint degree offered collaboratively between the University of Northern British Columbia and the University of British Columbia. Students develop a foundation in mathematics, biology, chemistry, and environmental science, as well as a hands-on understanding of engineering fundamentals, analysis and design.

[Environmental Science, Bachelor of Science](#) – Location: Prince George

The Major in Environmental Science is designed to provide students with knowledge of the fundamental biological, chemical, physical and applied aspects integral to the field of environmental science. Students also receive exposure to many of the human dimensions that underlie environmental issues.



[Forest Ecology and Management, Bachelor of Science](#) – Location: Prince George

The Major in Forest Ecology and Management provides students with a thorough understanding of the science, philosophy, and practice of managing forested ecosystems. The degree/Major is accredited by the Association of BC Forest Professionals. Graduates from the Major will be prepared for careers as natural resource professionals or to pursue post graduate studies in a wide range of disciplines that span the life, earth, social, and management/conservation sciences.



[opportunities.rdbn.bc.ca](http://opportunities.rdbn.bc.ca)

**Bulkley-Nechako Workforce Opportunities Table**  
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**Canada** 



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