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THE BC GOVERNMENT HAS A ZERO NET DEFORESTATION POLICY



DON'T MISS!



Sharon L. Glover, MBA
Chief Executive Officer, ABCFP

Canada's growing green workforce

If you want a great economic future and a role in Canada's greenest workforce, check out a future in the forest sector.

A wide variety of jobs exist in government, consulting, and industry that support forest, forest products, non-timber forest products and sustainable resource management related jobs. The BC forest sector is experiencing resurgence in employment prospects and increased market growth after an economic downturn.

With an increasing number and variety of jobs, the large number of workers in the sector close to retirement is a serious concern. Many organizations are focused on ensuring there are enough people working in the forest sector to keep it strong and vibrant for years to come.

The people behind the pines

One integral part of the forest sector workforce is BC's 5,500 forest professionals. They efficiently and safely manage the vast and varied resources in BC's 60 million hectares of forested land. Forest professionals manage forest ecosystems for all resources which includes trees, wildlife, water, soil, fish and biodiversity in a manner that balances ecological, economic and social values—for today and into the future.

Unfortunately, like other sectors, forestry is faced with an aging demographic. The number of forest professionals available to work in BC's forests is declining. The Association of BC Forest Professionals (ABCFP), the body that registers and regulates professional foresters and forest technologists, predicts that in next 15 years, over 40 percent of its almost 5,500 members will retire.

A national treasure

BC's forest sector is not only important to BC but also to Canada. The BC forest products sector workforce makes up about 29 percent of all Canadian employment in this sector and has been called Canada's greenest workforce by the Forest Products Sector Council. With the help of forest professionals, the province is a world leader in environmental stewardship and sustainability. BC has a policy of zero net deforestation and has more sustainable forest management certified area than any other place in the world. It is estimated that by the end of the decade the sector will need between 9,700 to 32,000 new forest professionals and others in BC alone.

With a greater diversity of job opportunities and fewer workers in the future, the ABCFP and the sector will need an influx of new workers to ensure the maintenance of an economically viable industry, and high levels of environmental stewardship and sustainability. More information can be found at www.abcfp.ca.



1-2. A beautiful demonstration of innovative and artistic wood construction in the Vancouver Convention Centre West established in 2009.

PHOTOS: STEPHANIE TRACEY, PHOTOGRAPHY WEST



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Building with wood: A no brainer

Question: How is the use of wood products environmentally and economically sustainable?
Answer: Production processes release far less pollutants into the atmosphere.

The perpetual construction and maintenance of buildings consumes a huge proportion of our natural resources.

How can we continue this process in an environmentally sustainable way? As it turns out, the answer lies in a building material as ancient as building itself—wood.

Raising the public consciousness

According to Peter Moonen, sustainability coordinator for the Canadian Wood Council (CWC), wood is undoubtedly the preferred building material for residential construction. Through its WoodWorks initiative, the CWC strives to maximize the number of structures, both residential and commercial, that are made out of wood by showcasing its



"Wood is undoubtedly the preferred building material for residential construction."

Peter Moonen
Sustainability Coordinator,
Canadian Wood Council

environmental and economic benefits.

A free environmental ride

Unlike artificial building materials like steel and concrete, wood is the only building material that is renewable. Powered directly by the sun's radiation and the water cycle, our forests can be continuously replenished with minimal effort on our part. Thanks in part to laws requiring reforestation of logged areas, Canada enjoys a deforestation rate of virtually zero.

According to the CWC, steel and concrete building designs produce 34 percent and 81 percent more greenhouse gases compared to wood materials, respectively. Moreover, trees actually ab-

sorb Co2—the most damaging greenhouse gas—and convert it into breathable oxygen. Remarkably, if these trees are harvested before they die, the Co2 remains trapped in the wood and cannot escape into the atmosphere. When it comes to water pollution there is no contest, with steel and concrete producing four and 3.5 times more water pollution than wood materials.

Using wood's full potential

When used in conjunction with recent technological advancements such as exterior grade structural plywood and cross-laminated timber (A.K.A "plywood on steroids"),

the service life of wood is as long as those of artificial building materials. Furthermore, wood is resistant to a wide range of substances that wreak havoc on steel and concrete materials. These include organic compounds, acid and neutral salt solutions, sea air, high relative humidity, industrial stack gases and sea air. The upshot is that if you know how to design with wood properly, it is just as cost-effective as steel or concrete. Combine this fact with its renewability, and it is difficult to see why anyone would want to build with steel or concrete when wood is a viable option.

Motivated by these facts, designers and builders are flocking back to wood. Light, strong, biodegradable and aesthetically pleasing, wood is a large part of the solution to the economic and environmental woes facing the construction industry in the 21st century.

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Creating a stronger future with cross laminated timber

An innovative wood product that's being billed as an environmentally friendlier alternative to concrete and steel, is literally pushing the limits in the world of construction.

Cross-laminated timber, or CLT, is layers of lumber, which are glued crosswise to its adjacent layers to form a type of jumbo plywood. The result is a product that's as strong as concrete and more dimensionally stable than regular wood. That means, unlike regular wood, it can be used to build structures that are taller than six stories.

"It's a much more stable and so-



Alan Potter
Vice President,
FPInnovations

lid structure," says Alan Potter, vice president of strategic technologies at FPInnovations, a laboratory that specializes in forest products. "The market for it is mid-to-high rise construction."

A Swiss innovation

Invented in Switzerland in the early

1990s, CLT is widely used throughout Europe. Potter says construction projects that use CLT are significantly less imposing than those that use concrete.

"With CLT, you can actually build a high-rise with fairly minimal disruption in the local neighbourhood" he says. "Building with steel and concrete construction, you often have to put a crate in the middle of there, you're shipping in these noisy concrete trucks, spilling concrete everywhere."

Although the cost of the material is slightly more expensive than other building material, it is quicker to build with since it's pre-manufac-

tured, and usually ends up costing the same amount as the alternative options. With CLT, it takes a crew of four or five people to build a building within about 10 weeks.

Currently, there are two plants in Canada that produce CLT—one in Penticton, another in Quebec.

CLT isn't currently in the National Building Code of Canada, and can only be used if signed off by a structural engineer. However, it is expected to be part of the building code within approximately two years.

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Is a Career in Natural Resources Management Right For You?

- Do you care about forests, wildlife, water, wilderness, and communities?
- Do you have an interest in the future of forests, forestry and forest communities?
- Are you interested in natural and social sciences?
- Do you want to work in the forest, learn to be competent and capable in the wilderness, and experience landscapes that many people will never see?
- Do you want the option to work for a large corporation, a non-profit organization, government, or your own business?
- Do you feel passionate about conservation, treaty rights, public involvement in forest policy, or international trade issues?

Over the past few decades, the responsibilities of Resource Management Professionals have become increasingly diverse and complex. There is greater pressure on the environment and resource-based communities, and now more than ever, our society needs bright, well-educated resource professionals. The University of Northern British Columbia is a leader in the preparation of students for careers in environmental fields.

Continuing Studies at UNBC is a province wide leader in developing and delivering natural resource management programs. Contact us to discuss your training and adult education needs.

Check us out at:
www.unbc.ca/esm and
www.unbc.ca/nres/grad_overview.html
www.unbc.ca/continuingstudies/index.html

