

# Bulletin

Christmas 2021

## International Timber Manifesto launched for COP26 P3 - 7



**Q: How can construction help keep 1.5° alive?**

**A: Use more timber**

→ **Mjøstårnet, Brumunddal, Norway.** Standing 85.4 meters (280 ft) tall, Mjøstårnet is officially the world's tallest timber building. By Voll Arkitekter and builders HENT and Moelven Limtre, with 18 floors the tower is setting new standards for both height and construction methods for timber buildings. (c) Moelven

Growing our low-carbon future  
**TIME FOR TIMBER**

**IN THIS ISSUE**

**P9**

La Ninā increases fire risk in western and southern regions



**P10**

Collaboration is key to wilding control



**P11**

Protecting the bats





# Markets and Covid – 2021 & 2022

**Log industry economics is a white knuckle roller-coaster of violent ups and downs. This time though it's harder than usual to tell the difference between daylight at the end of the tunnel and a train coming the other way.**

The unpredictable Covid outbreak in China last year was followed by the unpredictable economic shock here, even before we got the virus, and the lockdown had its impact both on jobs and the economy.

Uniquely among the major parts of the primary sector, forestry was not deemed essential enough to keep operating. The logic of being able to quaff wine – yet not build houses – was hard to follow.

But we did have very good support from MPI in securing a number of important exemptions which lessened the pain.

And then came the entirely unpredicted global demand for goods. The appetite for timber rocketed, as overseas holidays were replaced with DIY projects (if you're going to be stuck at home you might as well make it a bigger one) and new builds were spurred on by house prices.

Demand everywhere began to exceed supply, fuelled by massive injections of cash to keep the wheels turning.

Hot demand saw a surge in shipping rates. With only one percent of our two-way world trade not carried on ships, New Zealand was more exposed than most. Apart from a six-fold price increase, we struggled to attract ships when vessel owners could concentrate on more lucrative destinations.

To add to the mix, the 'houses are not for speculation' campaign by the Chinese government to dampen their property market, and reduce the reliance (more than 25 percent) of their economy on real estate, pushed down the demand for timber.

This combination caused a sizeable drop in harvesting, most noticeably the woodlots. This hurt the contracting workforce in particular, with income down to 60 percent in some areas.

All this contributed to a well-publicised tight domestic timber supply, which reminded us of the interdependence of domestic and export markets. Much of the low-grade part of the log goes to China, but, of course, you can't harvest only the bit of the tree the local mills want to use.

There is, though, a silver lining. Chinese inventory has fallen. Demurrage costs have gone down 40 percent.

With Chinese mills shutting early and the traditional slowdown of the Chinese New Year coming up, the recovery can only be gradual.

Evergrande's brush with insolvency sent shivers through the financial markets and China's property market troubles are not over.

But the Chinese government is also aware of the consequences of a property market collapse, and the value of people's investments falling. More recently, bank credits for developers and property firms increased (up from \$23.5b in September to \$31b in October).

That tightrope walk can be expected to continue with construction more subdued than in past years, but still healthy enough for New Zealand needs.

New Zealand managed to turn down the Covid relief tap in July after \$54b had flowed through it, with a substantial legacy to be managed. Other larger economies still have the flow going.

It is clear now that, while strong economic growth will resume, Covid and the disruptions it causes will be around for a long time to come. At the end of 2020 we had thought optimistically that the virus was a year-long chapter ending with the arrival of the vaccines.

For the foreseeable future, demand will exceed supply and that will add to inflation. Supply chains have been severely impacted. In October, the Port of Los Angeles had no berths available for 79 container ships waiting at anchor offshore.

What e-commerce started, Covid has brought to a head by reducing labour mobility.

There are calls for 'just in time' inventories to be replaced with 'just in case' supplies. But an overcompensation exacerbates the demand/supply imbalance.

Internationally, the length and fragility of supply chains has come under scrutiny, with efforts to shorten the distance between production and delivery. This is a problem for our small country with a lot of water between us and our markets and suppliers.

And then Covid continues to surprise. Variants, such as Omicron are almost a given and the least of our challenges will be remembering all the new names.

Trainspotting isn't an easy exercise.

**The Board and Staff of the Forest Owners Association wish you all the best for the festive season and look forward to working with you again in 2022.**

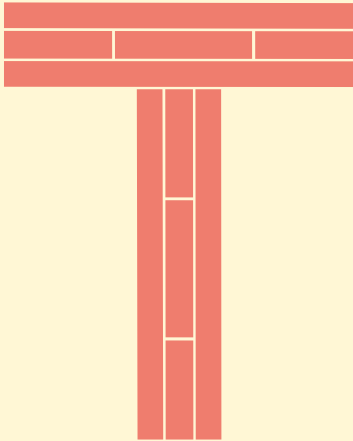
**The FOA Office will be closed at 5pm, December 23 and opens again at 8.30am 10 January.**



**DAVID RHODES**  
CHIEF EXECUTIVE, FOA



TIME FOR TIMBER



**The construction and built environment sector is responsible for approximately 40% of global energy related CO<sub>2</sub> emissions.<sup>i</sup> A significant percentage of this comes from the extraction, processing and energy-intensive manufacturing of building products.**

To achieve net zero CO<sub>2</sub> emissions by 2050, construction must rapidly decarbonise whilst still meeting the needs of a growing urban population, the increasing demand for new buildings and the urgent requirement to renovate existing buildings.

Wood is the only sustainable structural material that grows worldwide which can enable a substantial decarbonisation of the built environment based on existing business models and proven technology; providing vast carbon sinks in our rural areas and carbon stores in our cities.<sup>ii</sup>

### **The climate case for wood**

**Emissions from the built environment come from two main sources:**

- **The energy we consume within buildings for heating, cooling and power (operational emissions)**
- **The emissions associated with the extraction, processing and manufacture of building products (embodied emissions)**

*Increasing the use of wood is an effective way of reducing both.*



TIME FOR TIMBER

**Timber has naturally insulating properties, being 10 times more thermally efficient than concrete and 400 times more than steel, reducing operational emissions created due to heat loss within buildings.<sup>iii</sup> This makes timber and timber products ideal for the renovation and improvement of energy performance in existing buildings.**

forests are replanted or allowed to regenerate naturally and carbon sequestration continues.<sup>v</sup> Increased investment in sustainable timber also provides viable income for local communities and creates incentives for sustainable forest management, preventing deforestation and encouraging conservation of biodiversity and ecosystem services.<sup>vi</sup>

### Wood is a naturally renewable material which:

- 1. Sequesters** carbon in forests as trees grow
- 2. Stores** carbon in harvested wood products
- 3. Substitutes** for carbon intensive materials such as steel, concrete and plastics
- 4. Drives Sustainable** forest management leading to greater growth
- 5. Contributes to a Circular** economy as wood products can be reused, recycled and recovered for low-carbon energy at end-of-life

In addition, using wood products in construction displaces the use of carbon intensive alternatives such as steel, concrete and plastics, thus reducing emissions even further.

Lifecycle Assessment studies consistently show that timber products absorb and store more carbon than is emitted through their production – making them a net carbon reducer.

Using more wood in the built environment, including in furniture and interiors, is a natural, cost-effective, and sustainable carbon-capture solution<sup>iv</sup> – as once harvested,



**Timber: the urban solution**

Timber buildings have already been built that are more than 18-storeys in height, thanks to the development of new, innovative, engineered wood products – and will reach even greater heights this century.

Contemporary urban areas now enjoy buildings using wood at height and at scale. Products such as Cross Laminated Timber (CLT), Glued Laminated Timber (Glulam) and Laminated Veneered Lumber (LVL), have the structural strength of steel and concrete with the added advantages of being light in weight, thus not requiring such substantial foundations or significant transport to move.



**Europe’s forest areas have increased by 10% over the past 30 years, at a rate of 643 thousand hectares per year.<sup>vii</sup>**

*Likewise, in the United States and Canada sustainable forest management has resulted in more than 50 consecutive years where growth has exceeded harvest.<sup>vii</sup>*

*This growth has been encouraged by the commercial management of forests for timber and other forest products.*



← **Carbon 12, Portland, Oregon by Kaiser + Path**  
 This 85-foot-high mass timber condo provides residents with modern luxury, sustainable design and state-of-the-art technology. Constructed with sustainably harvested and certified CLT, when it was completed in 2018 it was one of the tallest buildings of its kind in North America, and the project is opening the doors to taller wood buildings throughout the state.  
 (c) Andrew Pogue

Timber and timber frame buildings can be prefabricated in offsite factories, requiring fewer deliveries to site and have quicker on-site assembly times, with far less dust and noise to disturb other local residents.

Wood offers modular possibilities to redesign and modernise buildings via additional storeys, roof extensions and interior refurbishment, maximising the lifespan of existing buildings and reducing the need for demolition. Recovered wood also has the potential for reuse in the



manufacture of new products extending the time the carbon is stored.

Despite some mistaken perceptions and rhetoric finished timber buildings have no greater fire risk than concrete and steel buildings.

### **Policy Recommendations:**

We are calling on political leaders and policy makers in every country to recognise forests and the global wood and forest industries as a major solution toward a more climate-resilient economy. This can be achieved through the following policies:

**1 Embed mandatory lifecycle assessments and embodied carbon thresholds within local and national building plans.** Only by measuring our environmental impacts will we be able to manage and steadily reduce our impact. These should be measured according to common metrics using existing tools, such as Environmental Product Declarations (EPD).

**2 Increase the use of wood within new build and renovation.** There is a need for affordable homes all over the world. Up-scaling must be done in a cost and climate effective way, using off-site, industrial prefabrication based on light, high quality, easy to transport, and sustainable, wood-based solutions. This will allow for less disturbance next to construction sites, reduced waste and increased affordability.

**3 Drive the growth of the bio-based circular economy through sustainable public procurement.**

Harnessing government spending to advantage climate-friendly solutions for construction and renovation of the building stock will allow investment and rapid expansion of the sector, thus supporting societal climate reduction goals.

**4 Facilitate resource efficient use of wood and wood recycling, especially collection and sorting in municipalities, and develop measures to gain access to post-consumer wood, an invaluable secondary raw material resource.**

The recovery and reuse of wood helps to prolong carbon storage and maintain availability of resources for further life cycles. Using the same wood multiple times is the most efficient use of this natural, sustainable and precious resource.

**5 Increase training to upskill workers and create new jobs**

to boost the development of a sustainable and circular bioeconomy. New areas such as modern renovation and prefabrication require different skillsets and knowledge bases. Enhancing training and education is essential to a) create more sustainable, green jobs, b) develop the new skills in nature-based materials and c) improve the traditional manufacturing in wood industries.



**Wood must be adopted more widely in the global built environment. The potential climate impacts of using more wood and wood-based materials are immense. They offer solutions based on existing business models and proven technology which simultaneously store carbon and substitute fossil resources and thus can diminish the CO<sub>2</sub> emissions caused by the global building stock.**

**Growing our low-carbon future: Time for Timber**

↑ Brock Commons Tallwood House is an 18-storey student residence at the Point Grey Campus of the University of British Columbia in Canada. At the time it was opened in 2017, it was the tallest mass timber structure in the world.

Courtesy of Acton Ostry Architects. Photographer: Michael Elkan



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# Clearwater Open Days draw engaging audiences

More than 100 building design and construction professionals flocked to the Clearwater Quays Apartments industry open day in November to witness the latest in low-carbon building technologies.

**“This was a great opportunity to showcase the advantages of mass timber design and construction, and we were delighted by the turnout,” says Jason Cordes, Red Stag Investments’ managing director.**

At the Christchurch open day, Jason Cordes outlined Red Stag Investments’ approach to the engineered wood design of the luxury apartments, including the environmental benefits of the low-carbon construction.

“We’re proud of how well our site management team engages with the industry visitors at these open days.”

“We’ve also been impressed with the level of understanding from our industry visitors of wood’s advantages when combining cross-laminated timber (CLT), laminated veneer lumber (LVL) and offsite manufactured wall panels.

“The best part about these site visits is enabling people to see and touch the product as our experienced site team explains how the wood changes everything in a building like this.”

On this project, Logic Group, the quantity surveyors, developed technology detailing how the carbon efficiency of commercial building design can be improved. This software is tailored to each new building.

“Our team used Building Information Modelling (BIM) and virtual design construction to develop a parametric digital twin BIM model for Clearwater.

**Building Information Modelling and virtual design construction is a new and innovative approach to cost estimation and carbon accounting**



**“I’m here today to just see an example of low carbon architecture and be able to ask a few questions about construction and also just to experience it.**

**Low carbon is the future of construction and we need to move toward low carbon solutions and this is a great example of it.”**

– Fiona Short, Warren and Mahoney Architects



**“It’s super important that we as architects learn more about technology that is available for us now and to reduce our embodied carbon emissions.**

**One of the main reasons for me is biophilia. For me it feels nicer to be close to wood and to touch wood instead of something like steel and concrete. It’s more of a connection to nature.”**

– Kate McDougall, Field Architects



This quantity surveying cost model is a new and innovative approach to cost estimation and carbon-accounting compared with traditional materials,” says Barry Lynch from Logic Group.

The open days are hosted jointly by the Ministry for Primary Industries (MPI) and Red Stag Investments Ltd. Funding for the programme is part of the ‘Mid-Rise Wood Construction’ partnership between Red Stag and MPI.

The programme aims to accelerate and increase the use of mass timber and prefabrication in a range of public and commercial building types. Mid-Rise Wood Construction complements the government’s initiatives to encourage high value domestic processing and

manufacturing from New Zealand’s plantation forests and deliver a zero-carbon construction sector by designing to increase low carbon materials used in construction.

More details, including the Clearwater case study and regular updates, are available at: <https://midrisewood.co.nz/>







# Wildfire season coming up

Forestry companies and owners have invested in firefighting equipment, along with infrastructure such as access roads, fire breaks and on-site reservoirs.

**Having this first responder capability means forestry operations can continue during the high fire danger periods and the warmer, drier months.**

It means training and awareness is provided for staff so they understand the safety procedures when they are working in the field, sometimes in more remote areas, and they know what to do should fire break out.

NIWA predicts a continuing La Niña weather pattern over the upcoming summer. Extra spring flush growth will increase risk of fire as it dries out or controlled burning is delayed.

The west and south of the South Island will be drier and hotter than usual. In the North Island, easterly winds will dry the south west regions, rather than the traditional summer dry east coast.

New Zealand's forests have always been at risk from fire. As temperatures rise and winds and drought make land and vegetation drier, the risk is predicted to increase.

Along with changing climate conditions, more trees are being planted across the country as communities, organisations and businesses seek to maximise their environmental, economic and employment value. Forests also provide such a wide range of lifestyle and recreation activities such as hiking, camping, mountain biking and walking. Therefore, forestry brings so many benefits to our country but also more potential for fire to happen on our estates.

Forest fires are usually not started by people working in the forestry sector although the sector may well have to deal with the outcomes.

Causes often include members of the public using barbecues and outdoor cooking devices, cars, fireworks, and vehicle exhausts, or even through deliberate actions. These are causes which, as the fires at Pigeon Valley in 2019 and Christchurch's Port Hills in 2017 and 2020 showed, can have serious consequences for local communities and economies and even people's lives. Fires



This dam in the Ngāti Hine Forest in Northland is a joint venture with Crown Forestry. This summer it will provide a large quantity of water for fire fighting if called on.

have already broken out on forestry blocks at the start of this coming fire season as well.

Education has a role in raising public safety and the awareness of forest fire danger. However, this approach is only one part of the equation. Response, awareness, and prevention must play their part as well.

Importantly, if New Zealand is to successfully mitigate and prevent fires, there needs to be strong collaboration and communication across local and central government, the forestry sector, first response agencies and communities. It is by working together we can have plans in place to respond quickly and effectively if forest fire occurs.

In September this year, Te Uru Rākau – New Zealand Forest Service formally joined as a partner with Fire and Emergency New Zealand, Forest Owners Association, and the New Zealand Farm Forestry Association as signatories to the Forestry Plantation Charter.

Through the Charter, Te Uru Rākau – New Zealand Forest Service is building on the work to better understand how forest fires can be managed at local, regional and

national levels and increase awareness and prevention across New Zealand.

The possibility of fire happening at a forest in New Zealand cannot be entirely eliminated, but it can be reduced by actions such as education and awareness, being prepared and having capability to respond. Also, this summer:

- Keep an eye on the 1pm daily fire weather indices for your area as this is your frontline for understanding of the fire risk in your region.
- Check for updates at <https://fireweather.niwa.co.nz/>
- Reach out and get to know your local Fire and Emergency brigade(s) and Risk Reduction staff.

After all, it's about relationships and bringing our resources, networks, and expertise together.

The more knowledge and collaboration we have, the better the response for protecting our forests and natural environment and keeping our staff, visitors and the public safe.

For more information on fire go to <https://www.checkitsalright.nz/>



# Collaboration the key to combatting the weeds among the pines at Mount Richmond

**The uncommon mineral-rich ultramafic rock soils of the Mount Richmond Forest Park is an ideal growing medium for nationally endangered indigenous plants, such as the Red Hills Forget-Me-Not and the Red Hills Geranium.**

It is difficult for most woody plants to grow and compete here.

But not for wilding conifers. They thrive and shade out the native vegetation.

Mount Richmond is 166,000 hectares in the high country half way between Nelson and Blenheim and extending south to the Nelson Lakes.

In late 2020, Tasman District Council teamed up with forest managers PF Olsen to remove wilding conifer infestation from Mount Richmond.

The four-year project is funded by the National Wilding Conifer Control Programme, through Biosecurity New Zealand (BNZ), a business unit of MPI, as well as further funding through the Department of Conservation under the Jobs for Nature Programme.

George Daly, the Project Manager from Tasman District Council, says not all wildings will be removed within the scheduled four years.

“It will be a much longer timescale than this. And it will take further work to ensure they don’t return.”

This wilding project covers around 283,000 hectares and so traverses private, public and conservation lands, which makes the removal of wilding conifers impossible without collaboration between many key parties.

Liam Watson, Forest Manager (Nelson) at PF Olsen says this funding has been hugely beneficial to the region. “Not only in reducing the spread of the wilding conifers, but also in providing local employment



PF Olsen crew.

and up-skilling opportunities in a Covid-19 affected job market.”

“All of our work in Mount Richmond Forest Park is guided by the Wilding Conifer Stakeholder Group who meet regularly to share knowledge and work together on control activities,” Liam says.

The Stakeholder Group members include MPI, DoC, Nelson and Marlborough councils, forest companies OneFortyOne and Tasman Pine Forests, local Iwi and private landowners.

Wilding control is a recent addition to PF Olsen’s services in Nelson. PF Olsen trains new recruits in wilding control work, including both health and safety, and environmental issues.

The training includes identifying wilding tree species by unique characteristics such as the bark, foliage/needles and cones, to determine the best treatment to kill them.

“Identification of planted conifers vs wilding conifers is relatively easy,” says Liam.

“We provide our contractors with detailed geo-referenced maps and GPS files showing control area boundaries.”

“These maps and files are then loaded into the operators’ GPS devices and cell phones and allow the operators to navigate the control area boundaries.”

# \$1.45m

\$1.45 MILLION WAS SPENT IN 2020/2021 TREATING MORE THAN 11,000 HECTARES OF LAND INFESTED WITH WILDING CONIFERS

Since the start of the project, the PF Olsen crew and their contractors have treated more than 11,000 hectares of land infested with wilding conifers in the project area, with a spend of around \$1.45 million in 2020/2021.

“We’ve treated around 321 hectares with ground-based herbicide injection – ‘drill and fill’ methods – and around 10,924 hectares from the air,” Liam says.

Sherman Smith, National Wilding Conifer Control Programme, Manager says Mount Richmond Forest Park is not only rich with rare species and ecosystems, but popular as well for outdoor recreation.

“Last year the National Wilding Conifer Control Programme, together with our partners, made huge progress on removing wildings from the Park. It really highlights the benefit of collaboration between so many key parties, including neighbouring forest owners and managers – a job well done to all!”



# Protecting the bats in Geraldine Forest

Pekapeka – the long-tailed bat – has won Forest and Bird’s 2021 ‘Bird of the Year’ by an overwhelming margin and Port Blakely is working with locals in the Geraldine Forest to protect these tiny animals.

## It’s breeding time for the long-tailed bats who live in Port Blakely’s Mid-Canterbury Geraldine and Raincliff Forests.

Staff have been setting traps to deal to possums and rats, the most serious threats to the bats – aka pekapeka or *Chalinobus tuberculatus*.

Bats – long and short tailed – are New Zealand’s only indigenous land mammal. Bats were once common throughout New Zealand, but numbers have plummeted with predators and habitat loss. The greater short tailed bat is probably extinct.

Radio transmitters have been attached to bats captured in the Geraldine Forest to monitor their travel and where their maternal roosts are. So far about 25 have been found, all in old crop, damaged trees or natives.

The Health, Safety and Environmental Manager for Port Blakely, Zac Robinson says a network of 25 Automatic Bat Monitors picks up the echolocation frequencies of the pekapeka and continued tagging will give a more detailed picture over the next few years.

Port Blakely is working with the Department of Conservation, Environment Canterbury, Timaru District Council Biodiversity Steering Group, Long Tailed Bat Working Group, ecologist Mike Harding, Arowhenua Iwi and neighbouring property owners.

The annual control in Raincliff and Geraldine Forests’ Māori Gully has been managed and funded by Port Blakely for a number of years. However, in 2020, the Timaru District Council approved co-funding the Māori Gully pest control for up to three years.

Livestock are excluded and wildlife corridors between Geraldine Forest’s Significant Natural Areas allow free movement of bird and seed. Port Blakely’s forests are certified to Forest Stewardship Certification standard.

Management of SNA areas within the Port Blakely Forests is a high priority and extensive pre-harvest planning of adjacent commercial blocks ensures any projected impacts from harvesting have minimal impact on the SNAs.

Zac says Port Blakely contractors do an exceptional job of protecting SNA areas during harvest in extremely difficult and steep terrain and supporting a range of biodiversity work such as the pekapeka projects, and wetland restoration.

Contractors have even donated machinery and resources to these projects.

“It’s a privilege to work with crews that are so eager to enhance the biodiversity and habitats of the environments they work in and go the extra mile, not because of compliance or regulation but because as foresters they take pride in their work and doing the right thing,” Zac Robinson says

Falcons – kārearea – also feature in Geraldine Forest, taking advantage of the cutover to provide them with prey, and Port Blakely has a specific management plan for these birds in the plantations it owns and manages around New Zealand, with a focus on nest protection and more recently monitoring the breeding pairs within each production forest.

Port Blakely has also begun to establish a 12-hectare wetland near the SH9 boundary of Geraldine Forest, and between two pekapeka colonies, and has planted 3,000 native seedlings there this year.

If you would like to visit a pekapeka colony, Raincliff is open to the public with walking and biking tracks throughout. There are 20 known pekapeka roost trees, (you can’t miss them).

The best time to visit is during the warmer months around dawn or dusk. They are extremely hard to spot and move roosts frequently, but you never know your luck!



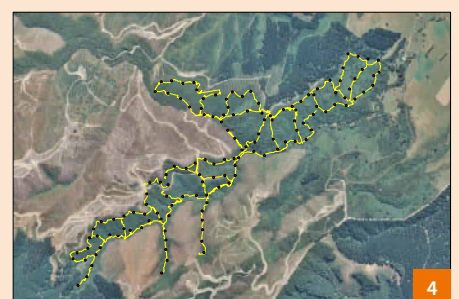
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1. Zac next to a roost tree.
2. Male pekapeka with transmitter attached – Māori Gully (first successful capture which confirmed the Māori Gully colony).
3. Recent harvesting around SNA – Credit to Cable Logging Geraldine for their excellent management of these areas.
4. Overview of the bait station network in Māori Gully.



# Natural Science and Innovation

Forestry set to grow.

**Three years into a Bachelor of Forestry Science at University of Canterbury, Robyn Patient is a passionate advocate for a career in forestry.**

“Forestry is such an exciting industry because there’s so much growth yet to come,” says the 20-year-old. “There’s a lot of opportunities that have been presented for innovation and development in the future.”

Growing up at Waikuku Beach, a small coastal community in Canterbury, a career in forestry seemed like the perfect opportunity for Robyn to combine her love of natural science with a rural lifestyle.

“The multitude of scholarships available and impressive, diverse job prospects for graduates” were additional drawcards.

In what she describes as a “really broad” degree, covering biology, chemistry, economics, land management and civil engineering, Robyn has learnt how to perform statistical analyses and use models to answer questions about forest management.

“I have particularly enjoyed learning about soil properties and wood properties on a cellular level, how to utilise GIS software, and about the government’s climate change and afforestation schemes.”

In her final year at Kaiapoi High School, Robyn took Chemistry, Biology, History, English and Geography – all subjects that have proven useful.

“Chemistry gave me an advantage in my courses because I had a good basic understanding of organic chemistry. Additionally, in Biology it was very useful understanding topics such as cellular respiration, photosynthesis and genetic inheritance.



“History taught me useful skills like how to find credible sources and how to structure my academic writings in an effective and concise manner.”

Physics would have been helpful too, “to get a grasp of some of the basic concepts that I use today”.

In the future, Robyn is keen to participate in conversations around kaitiakitanga and the effects of land management practices on ecosystems and is passionate about using research and innovation to influence positive changes in the forestry industry and New Zealand landscapes.

“I would love to help develop the foundations for a greater diversification of New Zealand’s forests,” she says. “Work involving the environmental and cultural services of forests for Tangata Whenua is also of interest to me.”

Robyn is a recipient of a Te Uru Rākau – New Zealand Forest Service scholarship, created to encourage participation in tertiary-level study, specifically the Diploma in Forest Management through Toi Ohomai Institute of Technology, the Bachelor of



“FORESTRY IS SUCH AN EXCITING INDUSTRY BECAUSE THERE’S SO MUCH GROWTH YET TO COME”

Forestry Science at University of Canterbury, and the Bachelor of Engineering (Hons) in Forest Engineering at University of Canterbury.

“This scholarship programme was created particularly for Māori and those who identify as female, who are underrepresented in the technical and management roles in forestry,” explains Robyn.

The scholarship scheme also provides internship placements which have provided Robyn with valuable work experience and industry connections over two summers.

For more information on careers in the forestry industry, visit [www.forestrycareers.nz](http://www.forestrycareers.nz) and [www.nzfoa.org.nz](http://www.nzfoa.org.nz)

First published in ‘Leaving School’ – [www.leaving-school.co.nz](http://www.leaving-school.co.nz)



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