

# 2022 Work Programme



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# Forest Growers Levy Trust Budget

	2020 Actual 1 Jan – 31 Dec	2021 Budget 1 Jan – 31 Dec	2022 Budget 1 Jan – 31 Dec
<b>Commodity Levies</b>	<b>8,667,677</b>	<b>10,560,000</b>	<b>10,560,000</b>
Interest income	27,317	1,500	4,000
<b>Total income</b>	<b>8,694,994</b>	<b>10,561,500</b>	<b>10,564,000</b>
<b>Operational</b>			
Operational	413,872	363,000	375,000
Secretariat	90,000	90,000	95,000
Programme management fees	1,312,812	1,517,622	1,506,000
<b>Work Programme Costs</b>			
Environment	76,660	136,500	236,000
Fire	4,979	47,147	26,694
Forest Biosecurity/Surveillance	719,677	825,614	970,000
Health & Safety	685,843	754,357	818,615
Marketing & Promotion	588,284	892,957	776,329
Research, Science and Technology*	5,377,956	5,143,347	5,380,600
Transportation	112,087	90,483	205,000
SME Committee	140,331	118,044	114,800
Training & Careers	356,743	471,473	500,000
<b>Total Work Programme</b>	<b>8,062,560</b>	<b>8,479,922</b>	<b>9,028,038</b>
<b>Total Expenditure</b>	<b>9,879,244</b>	<b>10,450,544</b>	<b>11,004,038</b>
Income tax on interest	0	0	0
Unallocated Funds	0	100,000	100,000
<b>Net Surplus/(Deficit)</b>	<b>(1,184,250)</b>	<b>10,956</b>	<b>(540,038)</b>

The comparative figures for special projects are shown according to the general headings only.

Special projects, by definition, are not comparable year by year. Actual project spending falls within budget categories that are consistent with the referendum budget categories.

## Operational (\$375,000)

### Integral and database maintenance (\$235,000)

Integral set up a stand-alone company "Levy Systems Limited" (LSL) to operate the Forest Growers Levy data and levy collection system. This separate company ensures individual company data is kept confidential and secure. LSL is responsible for collecting data on harvested wood products and invoicing the owner of these products. The levy is paid by forest owners directly into the Forest Grower Levy Trust bank account.

Funding for 2021 covers the operation of LSL and the funding of minor enhancements to the collection systems.

### Integral Software Amortisation (\$0)

Covers amortisation of software used by LSL to upload data and invoice levy payers. The original software programme that commenced 1 January 2014 has been fully amortised. This expense remains here for when enhancements are required in the future.

### Business Compliance and Reporting (\$140,000)

Covers the cost of the Levy Trust administration including bank fees, legal, Xero accounting subscription, audit fee, business advisory, board and secretariat travel, chair, compliance audits, AGM and other meetings and an associated communications programme.

This expenditure consists of:

Chairman's fee and other Board costs	48,000
Legal expenses, including legal support for the Work Programme	16,000
Audit fee, accounting and tax advice	11,000
Communications	20,000
Other (bank fees, communications, insurance, website)	16,000
Industry Representation	9,000
Compliance audit	<u>20,000</u>
	<b><u>\$140,000</u></b>

## Secretariat Costs (\$95,000)

FOA provides a secretariat service to the Levy Trust Board. The Chief Executive of FOA currently serves as the Chief Executive for the FGLT, answerable to the Trust Board for that function, not to FOA. The secretariat has a responsibility for liaising between the Trust and the two associations (FOA and FFA) who are delivering the levy-funded work programme including tabling the annual work programme and regular reports, as well as oversight of the levy collection process, constitutional matters, financial arrangements and accounting, legal and tax compliance.

## Programme Management Costs (\$1,506,000)

Changes to Programme Management Costs: these were reviewed and adjusted up for 2022 (to account for new full-time environment resource) to comprise 89% of total costs. The remaining 11% is attributable to either FOA or secretariat activities.

The management costs include FOA resources and are broken down as follows:

<b>FOA Staffing</b>	1,241,000
Approximately 9 FTEs based in Wellington and Rotorua and managing the Levy Trust approved programme of work in collaboration with the FOA/FFA membership committees, communicating with forest growers and the wider industry and coordinating efforts with the Farm Forestry Association. This includes the management of R&D activity.	
<b>Phones</b>	8,000
Fixed and cellular, line charge and usage	
<b>Stationery and Printing</b>	17,500
<b>General</b>	15,000
Depreciation and other	
<b>R &amp; M premises and equipment</b>	30,000
IT costs, meeting and storage SaaS costs and office maintenance	
<b>Occupancy</b>	108,500
Includes portion of office rental, power, cleaning services, office consumables	
<b>Travel and meetings</b>	78,500
Catering for committees, flights, accommodation, rental vehicles, workshops, stakeholders' meetings, expert/contractors travel when required, venue charges	
<b>International travel</b>	7,500
Includes a provision for engagement with International Council of Forest and Paper Association and FAO Advisory Committee on Sustainable Forest and with the Australian industry (AFPA)	
<b>Programme Management Total</b>	<b>\$1,506,000</b>
Per month	125,500

# Work Programme Costs (\$9,028,038)

## Fire (\$26,694)

Projects within the portfolio allocation	2022 Funding Requested	2022 Funding Approved By Committee
<b>Fire Risk Management – Investment</b> Undertake a project to quantify the investment that the forest sector currently makes toward fire risk management activities.	\$26,694	\$26,694
<b>Total for projects ranked within pre-approved portfolio allocation.</b>		\$26,694

Note: Fire Research is managed and reported via the Research Committee. The Fire Committee monitors the research programme and strongly supports the Scion programme.

## Forest Biosecurity (\$970,000)

Projects within the portfolio allocation	2022 Funding Requested	2022 Funding Approved By Committee
<p><b>Forest Biosecurity Consultant</b></p> <p>Funding for regular monthly time allocation for the forest growing sector to provide forest biosecurity technical support and advice, including the Forest Biosecurity Surveillance Programme, a cost-shared national programme with the Ministry for Primary Industries. Time is allocated for work on biosecurity matters for FBC, GIA, liaison with Scion and SPS Biota and other biosecurity system participants on the diagnostics and surveillance programme including reporting, governance, technical working groups, biosecurity research, and other tasks as required.</p>	\$40,000	\$40,000
<p><b>Forest Biosecurity Surveillance (FBS) Programme</b></p> <p>The annual surveillance for pests and pathogens of plantation forest species. The work is undertaken for the forest industry by SPS Biota and Scion. The objectives of the survey are to protect the forest estate through early detection of new-to-New Zealand and new-to-region pest (insects and pathogens) incursions and to protect trade from the potential negative impacts of any new incursions. (This includes being able to confidently establish Area Freedom).</p> <p>Costs for the FBS field surveillance and associated diagnostics activities are currently cost-shared 50/50 with MPI. Figures in the table below represent the funding requested, and account for FGLT cost increases resulting from GIA transitional discounts (40 FGLT/60 MPI) ceasing in June 2020. Non-model allocated surveillance (field activity and diagnostics) and Forest Health Assessment diagnostic costs are included as this represents an integral component of the wider forest biosecurity surveillance system. Costs for these activities are not cost shared with MPI.</p> <p>Diagnostics costs have increased due to increased sample volumes from the surveillance programme and the changing dynamics of diagnostic testing. The allocated budget was exceeded in both 2019 and 2020, and adjustments made in 2021 addressed this risk. These costs have been factored into this year's budget and the service contract.</p>	\$716,000	\$716,000
<p><u>Non-model allocated surveillance</u></p>		
<p>This funding is for the proportion of the FBS Programme listed below (line 2) that is not cost-shared. This component is referred to as "non-model allocation surveillance" (NMA) and is largely in-forest high risk site surveillance. The NMA expands the Forest Biosecurity Surveillance (FBS) programme to include high risk forest areas and risk pathways based on a risk profiling approach developed by SPS Biosecurity. This involves a risk-based approach to identify where to focus surveillance effort within forests surrounding high risk</p>		

areas. The system targets sites with high visitor numbers, high industrial activity, or proximity to major transport routes. The NMA addresses some of the acknowledged shortcomings in the current FBS risk model and enhances the forest biosecurity surveillance system by increasing the chances that new pests and pathogens will be detected early enough for eradication or containment to still be an option.

Cost (FGLT share) are broken down as follows:

1. Surveillance <u>model allocated</u> (SPS Biosecurity)	300,000
2. Surveillance <u>non-model allocated</u> (SPS Biosecurity)	180,000*
3. Contract management/reporting (SPS Biosecurity)	6,000
4. Diagnostics, Model Management, Forest Health Database (Scion)	230,000

\* Note that items 1 3 and 4 (only the FBS component) are cost-shared with MPI but item 2 is currently fully funded by FGLT.

#### Port of Tauranga Biosecurity Excellence B3 Project Contribution

\$2,000

\$2,000

The funding is for the forest growing sector as a partner to continue to contribute to the Port of Tauranga Biosecurity Excellence research work programme being delivered under B3. This initiative is closely associated with the TMBC but focuses on port biosecurity related research. The B3 collaboration (Scion and AgResearch) aims to undertake research to support the goals of these two initiatives. This modest investment leverages a much larger investment to support research into a range of port related biosecurity initiatives from sentinel plant monitoring trials and distribution modeling, through to trialing different insect trap types and deployment strategies to maximise early detection in port environments. This five year initiative has been an ongoing component of the biosecurity work programme since 2017. It is anticipated to conclude in 2022.

#### GIA Secretariat Support (Communications, Plant Council)

\$32,500

\$32,500

The GIA Secretariat is now funded by all GIA signatories, including MPI and industry. This funding is for the core services only and is in the form of a minimum club share that all signatories pay with remaining cost shared across all signatories proportionally by industry value. The forest industry's cost share (based on sector size) is estimated to be around \$32,500. Any user pays services (i.e., supporting or administering industry specific initiatives or operational agreements) will need to be paid for separately.

The Plant Council is a new amalgamation of plant sector GIA partners which aims to ensure improved coordination and efficiencies in GIA related activities across plant sectors.

#### Plant Pass Operational Agreement (GIA) – previously the Plant Production Biosecurity Scheme (PPBS)

\$25,000

\$25,000

Plant Pass is a certification framework to help plant producers/nurseries identify, control, manage and avoid biosecurity risk. It aims to support a professional approach to biosecurity across the plant production industry, which aims to minimise biosecurity risk within practical operational constraints, build industry and producer resilience, trust and social license, and aims to harness the critical skills and observations that exist in the



industry to protect and grow producers, their customers and ultimately New Zealand. Since 2018 the forest growing industry has worked alongside government and other primary industry sectors to develop Plant Pass to enable improvements in biosecurity risk reduction along the nursery pathway. *Fusarium circinatum*, the cause of pine pitch canker, is an example of a significant threat to the exotic forest growing industry in New Zealand that this scheme aims to minimise. The nursery pathway is a key mechanism of spread for this pathogen should it arrive here. Currently there are no pathway risk management programmes in place that would reduce this risk, both within, and external to, the forest growing sector other than seed import restrictions at the border. Plant Pass has been implemented as a five-year multisector Operational Agreement under GIA to which the forest growing industry is a signatory alongside other industries and MPI and as such will contribute a forest industry cost share.

**Lepidoptera Readiness and Response Contingency Planning**

\$20,000 15,000

Multiple sectors, including the plantation forest sector, have lepidoptera pests as key/priority pests affecting their sectors, however there is currently no single species, or multispecies readiness or response contingency plan for lepidoptera in NZ. For an order that contains such a wide array of significant pests and that have a relatively high likelihood of arriving in NZ as hitchhiker species this presents a significant risk to the Forestry, pastoral and horticultural sectors. Work to explore cross sector interest in the development of a Lepidoptera readiness and response Operational Agreement under GIA has been initiated. This proposal is for funding to support likely cost shared work programme activities as part of this OA in 2022.

**Forest Biosecurity Awareness improvement and Communication Programme (including Comms plan/strategy, Pinenet, Conference, Find a pest, Fact Sheets, SPS training, TMBC etc)**

\$60,000 \$50,000

This project aims to develop and implement a forest biosecurity communications plan or strategy which would encompass developing, maintaining, and delivering biosecurity awareness resources, promoting good biosecurity practices, and training including monitoring and reporting of potential biosecurity issues, good and simple biosecurity risk reduction practices that can be implemented by the industry, and enable regular communications targeted at specific audiences (i.e., PineNet, Bulletin, Tree Grower, etc). This also encompasses and consolidate pre-existing awareness and engagement activities, such as the annual forest Biosecurity Conference, Find-A-Pest reporting app, Tauranga Moana Biosecurity Capital sponsorship etc.

**Forest Sector Kauri Die Back Management Guidelines**

\$15,000 \$10,000

This project aims to develop forestry sector specific Kauri die back risk management guidelines that draw on existing complementary risk management plans but that takes account of, and adapt these, to the realities of forestry operations.

With the development of a National Pest Management Plan to manage Kauri die back disease it is important that the broader forestry sector takes a proactive role in mitigating, as much as is practicable, the risks it poses of introducing and spreading this pathogen through its operational activities.

**Biosecurity Guidelines**

\$20,000 \$15,000

This project aims to develop a Forest Biosecurity Guidelines booklet that covers off the

basics of good biosecurity practice for the forestry sector in a simple and easily digestible format for any forest sector participant. The aim would be to provide forest owners and those operating in or around forests with the basics to help them improve their biosecurity practices.

**Plant Pass Forest Nursery Pilot trials**

\$20,000      \$19,500

The Plant Pass certification standard requires some adaptation to ensure that while it can achieve its biosecurity objectives it can also be practically applied to the unique operational requirements of forest nurseries. This forest module is currently under development and once completed it will need to be tested to both ensure and demonstrate that it is fit-for purpose for forest nurseries, and to refine it where required. This project aims to support piloting the scheme and the forestry module within two forest nurseries as case studies (one bare root and one container nursery).

**Forest Biosecurity Notification and Triage System**

\$20,000      \$15,000

This project aims to establish consistent and common points of entry into the surveillance system for reporting of potential forest health or biosecurity issues, i.e., a single industry phone number/freephone and email address, alongside the Find-a-Pest app. It also establishes an initial triage and investigation capability to be able to receive and rapidly follow up any calls or notifications that are made and advise the notifiers on the best course of action.

**Forest Health Database review and future proof**

\$30,000      \$30,000

The Forest Health database (FHDB) is a critical component of the Forest Biosecurity surveillance system which enable us to rapidly and accurately determine where pests and pathogens currently are in our forest to (a) provide trade assurances to countries importing our logs and lumber, and (b) reliably track new incursions as they establish and spread, and (c) serves as the authoritative repository for forest biosecurity and forest health information.

The FHDB is currently being reviewed to identify improvements that could be made to make it a more efficient and modern information system that better supports its users and enhances the value of the information it contains. This resource will contribute toward priority improvements identified through this review.

**Total for projects ranked within pre-approved portfolio allocation.**

\$970,000

## Forest Resource & Environment (\$236,000)

Projects within the portfolio allocation	2022 Funding Requested	2022 Funding Approved By Committee
<p><b>Environmental Consultant</b></p> <p>The Forest Resources &amp; Environment Committee calls on the services of an expert RMA environmental consultant for ad hoc advice on issues that affect the sector. Time is billed on a quarterly basis and includes attending Committee meetings, advice on RMA and planning matters, and biodiversity management in light of a number of regulatory changes under the RMA that affect the forest growing sector. The Committee seeks funding for this activity as a core benefit to the forestry sector, as advice given can be applied nationally and provides support for a range of consultations and submissions on environmental legislation.</p>	\$10,000	\$10,000
<p><b>Statutory Change including NES-PF review, RMA reform, electricity regulations, NPS-IB</b></p> <p>A glut of legislation reform is being socialised, notably RMA reform. Resource needs to remain in place to be ready to respond to new legislation as it is socialised and to prepare submissions. The funding needs to be in place as a contingency as it not known when draft legislation will be released and typically there is a 6 week time frame to prepare submissions.</p> <p><b>RMA reform</b></p> <p>An initial and incomplete exposure draft of the NBEA was socialised and FOA prepared a submission, the draft is very high level, any bottom lines that will be set will be critical when these are set FOA will need to have input. Further iterations of the NBEA, in addition to the Strategic Planning Act and Climate Change Adaptation Act will also be socialised in 2022. These will requires further submissions and engagement.</p> <p><b>NES-PF</b></p> <p>A review of the NES-PF is expected by the end of the year, there is discussion about regulating carbon forestry through the NES-PF. Any amendments to the NES-PF will require significant input from FOA.</p> <p><b>NPS-IB</b></p> <p>Awaiting update from the ministry (due out 'before Christmas'). Significant input and engagement with this will be required.</p> <p><b>Electricity Regulations</b></p> <p>It is expected that consultation documents will be socialised in 2022 which will require legal advice.</p>	\$112,000	\$112,000

**FSC Cluster Group Support and FSC Standards Development Group Support**

\$3,000

\$3,000

The FSC Standards Development Group meets as a forum to engage across a range of FSC and wider industry topics and is Chaired by an FOA representative, who manages the meetings with environmental, Māori, and social chamber representatives. The funding includes reimbursement of travel costs, catering, and attendance fees for these representatives to meet with the FOA representatives up to four times a year.

The FSC Cluster is the group of 22 FSC-Certified companies in New Zealand and the funding supports some of the costs of the Cluster to meet such as venue hire and catering. The FSC Cluster is mainly funded by certified companies but a small contribution is made to the logistics of the meetings.

**Falcon Management Study**

\$24,000

\$24,000

The objective of this study is to inform better management of kārearea/New Zealand falcon in commercial conifer plantations. The aim is to measure nesting success, adult survival rates, and habitat use because these allow us to test management actions to mitigate conflict between nesting falcons and forestry operations (roading, site preparations, harvesting and windrowing).

The study will experiment with habitat manipulation, aiming to reduce conflict between forestry operations and falcon nesting by refining nest disturbance mitigation, and assess if predator control could offset impacts of operations on falcon populations. The project has been funded previously wholly by Rayonier Matariki, City Forests, and Wenita Forests in the Dunedin region. The output will be updated management guidelines for falcon in plantation forests.

This project was funded for 2020 with the potential for fieldwork to extend to 2021 and 2022.

**River catchment flythrough**

\$20,000

\$20,000

The media attention following the 2018 Tolaga Bay slash incident, the rhetoric of 50 shades of green has created some negatively skewed industry press which has overshadowed the positive environmental benefits of plantation forestry. A proposal has been discussed by the Environment Committee to promote the water quality benefits of plantation forestry.

This would be a joint project between the Environment and Promotions Committees.

There are two parts to the proposal.

**1. River Catchment Study**

It is proposed to fly through selected river catchments from the forested headwaters to the ocean using drones and helicopters to create a visual document of diminishing water quality with changing land use type. The concept **is to show in a** visually compelling manner, the relative positive effects of forestry on water quality through a transect of land use types. It is anticipated that a visible loss in water clarity (i.e. higher sediment loads) will be apparent downstream in areas of pastoral or urban land use.

Alongside the video flythrough, water quality data will be collated from various publicly available information sources, (MfE and Regional Councils) committee members and where there are gaps, supplemented by sample analysis.

Suspended sediment is the main analyte, whilst there are other environmental parameters which could also demonstrate similar water quality benefits – levels of nitrates, phosphate, potassium, fungicides, herbicides, pesticides and e-coli.

Analytical results spaced at intervals along a river channel, in the different land use types will provide the data to quantify the visible changes in water quality. In anticipation of any health and safety or access concerns raised, it should be noted that water samples can be collected directly from the drones and/or helicopters using hydro-sleeves and fishing weights.

The final product will be four - six videos showing a fly through of various land use types, with cut-aways to point discharges, which depict diminished water quality as the video moves from forest cover through to other land use types. Environmental data will roll through the video to quantify visual changes.

We know that the project is feasible as a similar video fly through exists but does not include water quality data, it does not include urban land use in the surrounding area or document conditions following a storm event.

Ideally flythroughs will capture a variety of land use types to avoid unfair bias towards any particular downstream land use such as dairy farming. A ranking matrix will be used by the Environment Committee to identify the catchments which will best tell the story. It is proposed that video footage from a good cross section of catchments is used, approximately five. A topographical map inset will place each of the catchments shown.

**2. Extreme Weather Events**

It also is proposed that drone/helicopter flythroughs are undertaken following an extreme weather event to demonstrate the resilience of forested steep land during such events. Videos in this instance would provide informed and graphic information on the storm damage and potential role of forestry in it.

The final product for the second part of the proposal will be a video demonstrating the resilience of forested steep land through extreme weather events.

**Committee Biodiversity Strategy**

A significant number of indigenous species inhabit plantation forests including a range of rare and threatened species. A small number of these have been studied specifically in the plantation forest habitat, although this has been somewhat limited to date. The studies that have been completed have provided invaluable information to better understand how those species make use of the plantation forest habitat and how forestry operations impact them. The outcomes of these studies have been used to inform industry protocols for those species. Without such research it is almost impossible to develop best practice management protocols that are underpinned by robust science.

\$15,000

\$20,000

Increasing regulation to protect indigenous species habitat is a key risk to the industry. In the absence of good science, biodiversity regulation is often overly precautionary and ill thought through – in the worst cases scenario this could result in significant and costly constraints on the industry with negligible biodiversity benefits. The only way to ensure that research is carried out in priority areas that will benefit the forest industry is to take an active role in prioritising and encouraging research directions.

This project is for the Environment Committee to seek specialist advice from a range of ecologists with practical knowledge of biodiversity in plantation forests, to review research completed to date and develop a robust strategy to guide future biodiversity research in production forests. The key focus will be on the productive forest area, including species that utilise the production forest habitat, and the direct interface between production forests and embedded indigenous vegetation remnants. The strategy will identify key knowledge gaps and prioritise areas for future research.

**Land Use – Pakuratahi**

\$15,000      \$15,000

Over the period 1993-2005 Hawkes Bay Regional Council with assistance from a number of parties undertook a paired catchment study, monitoring and comparing various water quality attributes in two similar adjacent catchments, one in forestry and the other in farmland. The study period included first rotation harvest of forest in the Pakuratahi catchment. The Hawkes Bay Forestry Group is currently in discussion with Hawkes Bay Regional Council to reactivate part of that study to monitor the period up to and including second rotation harvest to get a more complete record, particularly in relation to sediment losses. It is proposed that the industry will provide some financial support. The project is in the early development stages so as yet it is unclear what commitment will be required or the proposed commencement date.

**Forest Practise Guides**

\$4,000      \$4,000

The sub-committee working on the forest practise guides (FPGs) has recently expanded following feedback via the FOA website that the committee preparing and reviewing the FPGs is industry biased. It was recommended that further independence could be achieved by inviting members from the regulatory community into the committee. As such, three reviewers have been added to the committee, from Environment Canterbury, Canterbury University and MPI.

Funding is sought to cover meeting and travel expenses in support of the expanded sub-committee.

**Wilding conifers conference and media releases**

\$3,000      \$3,000

Funding support is requested to liaise with the Wilding Conifers Control Programme (WCCP) and attend the annual conference to tell industries story. The WCCP was not aware of the work industry was undertaking (i.e. information that is being collated in the shared environment committee spreadsheet) and was surprized at the scale of the contribution industry is making towards wilding control. It is anticipated that similar misconceptions or lack of understanding is paralleled by the public.

The WCCP would like to better engage with industry and share stories about the good work that is being undertaken in their newsletter, WCCP have requested industry present at the annual conference and produce webinars for their website. Similarly, FOA would

like to prepare stories for the bulletin, share information on the website and, working with the promotions committee, some glossy magazine ads. The positive stories will contribute to the industries social licence to operate.

**Monitoring and Assessing Native Planting**

\$15,000      \$15,000

Monitoring native planting and from these results, provide recommendations and advice on sites and species to improve future success. This would first involve appropriate monitoring and assessment of current native planting across the country on a variety of sites, including those which have had funding by the tax payer or rate payer – MPI/Te Uru Rakau and regional or district councils. It will improve the economic value of native planting by helping to increase the frequently low survival rate of native planting and significantly improve overall productivity of native tree planting.

**Kauri Dieback Management Guidelines**

\$15,000      \$10,000

This project aims to develop forestry sector specific Kauri die back risk management plans that draw on existing complementary risk management plans but that both takes account of, and adapts these, to the realities of forestry operations.

With the development of a National Pest Management Plan to manage Kauri die back disease it is important that the broader forestry sector takes a proactive role in mitigating, as much as is practicable, the risks it poses of introducing and spreading this pathogen through its operational activities.

**Total for projects ranked within pre-approved portfolio allocation.**

\$236,000

## Health and Safety (\$818,615)

### Projects within the portfolio allocation

2022 Funding Requested	2022 Funding Approved By Committee
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#### Forest Industry Safety Council (FISC)

\$818,615

Committed liability for 2021 including an admin resource and accounting support for FISC Trust. FISC has operated successfully to date and has commitment from ACC and WorkSafe for project funding up to June 2022. This includes funding for a full-time project manager. FISC requires core funding for 2021 to continue the programme of work.

(Note that WorkSafe NZ and ACC will be contributing in addition to the budget recorded here. The work programme for FISC is a work-in-progress but key budget lines will include:

FISC operating costs (National Safety Director, administrative support costs and office overheads)	\$357,615
Stakeholder engagement via regular newsletters, regional workshops, attendance at industry events and an annual Safetree conference	\$72,000
Costs associated with the operation of the Council and their governance of the agreed work programme and projects	\$63,000
Safetree Certification (Bravegen licensing, Governance panel and certification costs)	\$250,000
IRIS (Injury Recording Incident System) enhancement to align the database with the new legislation and expand its coverage within the sector beyond FOA members	\$56,000
Operational Action Group	\$20,000
<b>Total</b>	<b>\$818,615</b>

**FISC Individual and Contractor Company Certification Scheme  
Embed certification in industry**



The Independent Forest Safety Review (IFSR) made key recommendations that the forest industry, led by FISC, implement the following:

- a contractor company certification scheme
- individual competency standards for high risk tasks; tree felling and breaking out

Schemes have been developed, Safetree Contractor Certification and Safetree Worker Certification, along with governance of both schemes.

In developing these certification schemes a key focus has been to educate the wider sector in the following areas: leadership, risk management, worker engagement and current competency for high risk tasks.

In developing Safetree Contractor Certification, the following matters have been taken into consideration:

- There is sufficient industry support for the schemes to become self-sustaining; development work has been supported strongly by FICA and FOA have also taken a keen interest. Uptake is initially aimed at FICA members (Year 1 - 50% and Year 2 - 75%) although the scheme will be open to non-FICA members.
- Maintain costs at an accessible level to ensure smaller companies will be able to participate; currently costs for individual companies to join the certification scheme are estimated to be in the region of \$800 - \$1000.00

It is recognised that support for the scheme will rely largely on forest owners and other supply chain participants acknowledgement and acceptance of the certifications.

The FISC Council continues the “roll-out” and embedding of these schemes with industry participants nationwide which will require additional infrastructure requirements. In order to accomplish this FISC requires funding for

Certification:

- Training sufficient assessors for Safetree Worker Certification and conducting peer review workshops\*
- Training sufficient auditors for Safetree Contractor Certification and conducting peer review workshops \*
- Regional workshops
- System administration costs

*\* Peer review workshops are vital to ensure consistency of approach and to discuss learnings, good practice and any system modification that may be required*

Governance

- Maintenance of governance processes via the established Certification Panel

Plan for delivery - This project will be managed by FISC and will require additional administrative support to be fully effective.

In addition, a review of Safetree Contractor Certification has been commenced focusing on the software provider, the quality of the assessment tool, other possible tiers, extending reach in the sector and where the operation of certification sits.

Estimated Timeframe - 1 January 2021 – 31 December 2021.

*Note that Competenz (the forest industry ITO) has been a service provider in respect of managing the database that will be required to provide system integrity for Safetree Worker Certification, as well as assisting in the training of assessors and moderators.*

## Promotion (\$776,329)

Projects within the portfolio allocation	2022 Funding Requested	2022 Funding Approved By Committee
<p><b>Facts &amp; Figures publication</b> The flagship industry one-stop-shop annually updated information source, published with MPI, on all aspects of forest industry. Data covers production, exports, world forestry, comparisons with other sectors of the primary industries, contact lists, biodiversity monitoring, employment, health and safety progress, environmental monitoring, employment, health and safety progress and environmental monitoring.</p>	\$15,000	\$15,000
<p><b>External Membership</b> Membership of other organisations, such as Business NZ, ICFPA</p>	\$10,000	\$10,000
<p><b>Sponsorship</b> Funding available to support events, either regularly or one-off events, which enhance industry messaging and networking</p>	\$20,000	\$20,000
<p><b>FFA Communications</b> Grants to FFA in its work in publishing and distributing Tree Grower and Newsletters, the extension and maintenance of the small-scale forester contact list, the updating of the FFA website and Farm Forestry E-News.</p>	\$65,000	\$65,000
<p><b>Website Development</b> A proposed URL which is necessary to fill a major information gap to provide Love our Forests extended text, video and image messaging reference from the tv, print and radio campaigns, wider based than NZ Wood site.</p>	\$30,000	\$30,000
<p><b>Small Scale Levy Payer Admin Grant</b> Funding for the administration, reporting and support of activities aimed at small-scale levy payers.</p>	\$40,000	\$40,000
<p><b>National Fielddays - Mystery Creek</b> A total of \$100,000 (from both 2021 and 2022 budgets) has been approved as a joint venture, primarily with MPI, for a major forestry and timber hub at the Mystery Creek National Fielddays in 2022. Red Stag and Scion are also leading contributors.  This will be the first time the industry has had such a presence at the primary sector's most important event of the year.</p>	\$75,000	\$75,000

A prime 48m by 26m site has been secured and invitations have been issued for participation in the hub, primarily by industry associations.

The theme of the hub is 'It's Time for Wood' as an integral component of the joint FGLT/MPI forest and wood promotional campaign.

**Joint MPI Promotion**

\$150,000      \$150,000

FGLT and MPI are conducting a major promotional campaign, as an extension of the Love our Forests campaign under the campaign banner of 'It's Time for Wood'.

The campaign is to be launched early in 2022, incorporating an on-line and social media presence, as well as print, radio and television advertising.

The agreed seven themes are; carbon sequestration, indigenous timber, farm forestry, the circular bioeconomy, modern engineered timber, the Māori dimension and lifestyle.

The target audiences include the public at large, but more specifically targeting is at farmers to plant trees, and to attract consumers to wood products.

It is envisaged that this campaign will be ongoing.

**Digital Café**

\$75,000      \$75,000

Digital Café has been commissioned to conduct social licence social media activities (from both 2021 and 2022 work programme budgets).

This will allow paid advertising on social media and targeted outreach to selected activity and regional groupings.

A major part of the activity programme will be focused on the 'It's Time for Wood' campaign.

**Wingspan Sponsorship – Karearea**

\$50,000      \$50,000

Wingspan proposes developing a significant multi-use Wingspan National Birds Prey Centre. It will be an education centre, research institution, rehabilitation centre and breeding facility where people can visit and see karearea up close during interactive flying displays (hosted by the country's leading experts), learn about this unique species, its cultural significance, and its place in New Zealand's ecological diversity, showcase the forest industry's important role in protecting this taonga species and contribute to conservation in action.

This venue will enable Wingspan to grow and maintain its profile in the community, become a community hub for cultural, conservation, education activities, further build on its national research contribution and develop additional revenue streams for the Trusts conservation activities.

**Plantation Forestry Aotearoa - 2nd Edition**

\$42,000      \$41,329

The first edition of PFA grew out of the need to provide a forest industry overview post the 2019 election, but designed for public consumption rather than just for politicians.

PFA has been very well received and clearly fills a gap in forest industry information, beyond that provided by Facts and Figures.

Even in the year since it was published, much of the information is dated. This will be even more so by the middle of 2022.

The proposal is for a second edition to update and improve the information in the first edition and make it available for distribution at the Mystery Creek Fielddays.

### Billboards

\$50,000      \$50,000

Promotions has set a high priority on the erection of Love our Forests Billboards in key locations throughout New Zealand, based on the unique visual opportunities offered by a forest landscape beside a heavily used main highway.

The current billboard project is the Topuni site which belongs to Rayonier Matariki. A contract of \$4,69.03, for engineering approval was made under the LoF 2021 budget, but, due to COVID lockdown, neither this nor the downstream resource consent nor construction costs are likely to be called upon in 2021. Nonetheless we are now committed to this billboard.

The \$60,000 budget proposal is to allow either an additional billboard or to progress the request from the Hawkes Bay Regional Council to collaborate in the design and printing of information billboards in their forests. The allocation here would provide for that and provide for the design to be delivered to other public access forests.

### Promotional Campaign - post June 2022

\$50,000      \$50,000

A \$50,000 fund has been made available for promotional work after the Mystery Creek Fielddays have ended in June 2022 to be available independently of the MPI It's Time for Wood joint venture. The direction of the spend, and any need for additions to it, will be considered at the time by the reconstituted Promotions Committee.

### TUR extension

\$25,000      \$25,000

Te Uru Rākau – New Zealand Forest Service and the NZ Farm Forestry Association are in discussions about partnering to deliver a pilot series of forestry extension workshops for sheep & beef and dairy farmers in early 2022. The aim is to educate and provide real-life examples of successful on-farm planting, involving Beef and Lamb and leveraging the extensive network of farm foresters in the pilot regions. Subject to approving the details, Te Uru Rākau – New Zealand Forest Service has agreed to meet most of the costs of the pilot. The NZFFA is seeking an element of co-funding to assist its contribution in planning and running these events. As the NZFFA will be advocating the timber values of farm forestry, trees planted under this programme should be subject to the forest growers' levy when harvested. Supported by the SME Committee.

### Rural Games

\$70,000      \$40,000

A dedicated 'forestry' sector stall in the Agrifutures pavilion 11 to 13 March with information on forestry and careers. Two 'forestry games' as part of the Clash of the Colleges Agri Competition that secondary schools from all over the lower North Island compete in. This is part of the televised show.

Collaboration with John Turkington Forestry, JTL and trucks by McCarthy Transport. There will be trophies and prizes for the winning machine drivers.

There will be “forestry social media influencers” attending the event over the 3 days and posting about the weekend as part of the package.

**Promotion Support Position**

The contract position, expected to commence during the second half of 2022, would provide backup to the Communications Manager thus allowing a better balance between the work programme management and social media responses.

\$40,000

\$40,000

**Total for projects ranked within pre-approved portfolio allocation.**

\$776,329

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## Research Science & Technology (\$5,380,600)

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As with prior years, the majority of the existing projects set out below, represent continuations of long term, co-funded research and have obtained consistent funding from the Trust since their establishment. These programmes continue to receive strong industry support and are considered highly relevant to achieving the recently finalised (2020), Forest Growers Science and Innovation Plan. It should be noted that changes to this funding will have significant implications, especially where MBIE co-funding is directly leveraged to commercial money.

In 2020 the Forest Research Committee (FRC) adopted a strategic assessment framework and associated tool to improve its assessment process. In parallel, the FRC adopted a balanced portfolio approach for delivery to the 2020-2035 Science and Innovation Strategy. In 2021 the FRC reviewed the framework and agreed to make adjustments to the associated economic measure, however all other aspects (e.g. weightings) remained unchanged. This framework was used by the FRC to rank all 2022 proposals.

The model uses a weighted assessment to measure each project's ability to contribute to a set of drivers and was used to assess all programmes requesting funding in 2022. In making its recommendations, the FRC also considered a variety of aspects alongside the strategic scoring process. However, the strategic scores were used as a way of ranking proposals in each scenario. Moderating factors were considered following proposal ranking.

The following aspects were considered:

1. Direction from the FGLT as provided at the portfolio meeting in August:
  - Biosecurity
  - Resilience
  - Contingency activity
  - Labour/mechanisation
2. Recommendations from other FGLT committees
  - Had the proposal been reviewed by the relevant committee and where they positive toward the proposal?
3. Co-funding required or confirmed
  - Projects requiring large amounts of unsecured co-funding were seen as a potential risk
  - Projects with substantial existing co-funding were seen as favourable
4. Implications to prior investment if not funded
  - Was there a risk of losing momentum or value from prior investment if not funded?
  - Could it harm strategically important relationships if not funded?
5. Consideration was given to the relationship of proposals to other activities that may be occurring elsewhere.
6. FRC were asked to consider if the proposals could be modified or improved to deliver greater value?
7. Were there alternatives ways of supporting the proposal?
8. How would investment affect the portfolio balance?
9. Area of contribution within strategy?
10. Consideration was given to the funding risk/proportion of total funding requested
11. What if no moderating aspects were taken into account, and projects were solely funded based on score?

The outcome of the above processes forms the basis for the 2022 FRC funding recommendations, which include a number of new initiatives.

A major new programme "Precision Silviculture -Modernising Silviculture in the digital era" was developed during 2021 and submitted to funding agencies for government funding support. This 7-year SFF Futures programme, aims to develop tools and technology to improve silvicultural practices. This was submitted to the SFFF acceleration fund in November and if successful is expected to begin in early 2022. In addition, Scion received a successful outcome for the next iteration of its Extreme Fire Research Programme, which was requested to be co-funded by FGLT over the coming 5 years. Lastly, a new

biotechnology-specific project, co-funded with Scion (75% Scion funded) was recommended for funding. This project explores the potential of new gene editing technology and other molecular mechanisms to provide resistance to radiata pathogens and leverages technology developed in the recently completed Winning Against Wildings programme.

Ongoing work in areas of mutual interest with the Radiata Pine Breeding Programme (RPBC) is expected to be supported via the continuation of the Next generation Genetics and Deployment project, that in its current phase will focus on assessment of RPBC large plot trials as a way of gathering data on genetic performance for incorporation into industry growth models. In addition, the FRC have recommended funding that pre-emptively explores the potential for population resistance to pests and pathogens currently not present in New Zealand. This work will be performed via collaborators in Spain, in conjunction with RPBC and The Tree Lab.

Several aspects within the Silviculture programme will look at technology to improve small grower efficiency and subsequent access to automation and/or innovative new technology, especially in the areas of pruning and planting. In addition, several programmes recommended by the SME committee, were also included within the FRC funding recommendations.

## Projects within the portfolio allocation

	2022 Funding Requested	2022 Funding Approved By Committee
<b>Specialty Wood Products Partnership (SWP)</b> A six-year partnership with MBIE and a number of forest companies who are investing an equivalent level of funding as FGLT. Partnership is focused on raising the confidence of growers in other species. These are Douglas fir, Cypress species, durable eucalypts and non-durable eucalypts. The programme will enter its fifth year of a six year programme and in addition to breeding and site to species matching it also has a focus on new wood product opportunities from these species. Funding request in 2021 has increased by \$50,000 due to reduction in direct industry investment by one company.	\$220,000	\$220,000
<b>Automation and Robotics in Harvesting and Logistics</b> A Primary Growth Partnership (PGP) between industry and MPI with a focus on automation and robotics post tree felling to improve the safety and efficiency of operations in the log supply chain, reduce repetitive manual tasks and make harvesting and logistics jobs a more attractive option for a new generation of workers. Projects include hauler automation, log tagging, residue management and automated log sorting and transport. The Partnership commenced on 1 January 2019 and will enter its third year of seven years with industry contributing 60% and MPI 40%. As per the work plan submitted to MBIE industry funding increases from \$0.9m to \$1.13m in 2021.	\$1,000,000	\$1,000,000
<b>21<sup>st</sup> Century Tissue Culture Partnership (TCP)</b> A six year partnership with MBIE that commenced on 1 July 2019 and is focused on improving the efficiency of tissue culture plant production through automated bioreactor and propagation systems. Building on the significant past investment in breeding and	\$600,000	\$600,000

genomics this programme aims to considerably shorten the time required to deploy the best genetics from breeding programmes to the forest. It will also broaden the selection of improved genotypes that can be propagated efficiently and is a prerequisite for gene editing and other genetic technologies.

**Tree Microbiome**

\$300,000      \$300,000

A five year MBIE funded endeavour programme that aims to take scientific learnings from the human microbiome and use them to guide research on the root microbiome of radiata pine with the goal of understanding how the root microbiome can alter a tree’s response to changing environmental conditions.

**Rural Fire Research**

\$100,000      \$65,000

The Rural Fire Research programme will extend current research testing the new convective fire spread theory developed by the US Forest Service to extreme fire behaviour through burn experiments in standing conifers (wilding crown fires) and heavy slash fuels (fire whirls and mass fire behaviour). It will also model wildfire spread in the rural-urban interface where houses are fuels, by linking computer models for suburban wildfire spread and atmospheric turbulence with data on ignition properties of buildings and vegetation fuels. Research will also be conducted into the flammability of indigenous forests, better preparing rural-urban interface communities through improved wildfire risk planning and use of guided innovation practices for developing new firefighting tools, technologies and decision-support systems. The programme of work built into the new proposed MBIE Research Programme bid, “Extreme wildfire: Our new reality - are we ready?” was developed in partnership with the New Zealand Forest Owners Association, Forest Growers Research, Te Uru Rākau and other members of the Rural Fire Research Advisory Committee.

**Utilising the power of *Trichoderma* root endophytes for forestry bioprotection and production**

\$131,000      \$131,000

Ongoing work is being conducted to establish a long-term symbiotic relationship between forestry trees and beneficial native *Trichoderma* root endophytes, to improve production, alleviate the economic cost of current and future incursions of foliar diseases and reduce agrichemical use. Initial results in young *Trichoderma* inoculated plantation radiata pine trees showed a significant increase in height, trunk diameter and Dothistroma needle blight (DNB) disease suppression. This project is looking to validate and commercialise a *Trichoderma* bioprotectant for forestry bioprotection and production.

**Next Generation Genetics and Deployment – Elite Genetic Gain Assessment**

\$145,000      \$145,000

Agreement has been reached with Radiata Pine Breeding Company to work with them on collecting information at stand level on the performance of the latest genetic material coming out of the breeding programme. RPBC are establishing the trials and assessing individual tree performance to determine breeding values and FGLT is measuring the PSP’s established in the stands for growth modelling purposes to demonstrate the value of genetic improvement. The programme also includes a nursery automation component



aimed at speeding up the planting of elite tree stocks coming out of the tissue culture programmes in small plugs to reduce the reliance on nursery labour.

**Hosting and Supporting On-line Radiator Calculator**

\$35,000      \$35,000

Hosting the Radiata On Line Forecaster Calculator that is used by small growers and consultants to develop yield estimates and to evaluate alternative silvicultural regimes.

**Forest Growers Conference and Workshops**

\$20,000      \$20,000

Support for workshops and conferences where the full cost cannot be recovered through user pays.

**Forest Operations and Disease Control**

\$90,000      \$90,000

The aims of the project are to undertake a detailed study to quantify the movement of pathogens on logging trucks and forestry equipment during operational activities and Investigate patterns in logging truck movements to provide information on potential pathogen movements. This will aid decision making if biosecurity zones are to be set up in response to a biosecurity threat or emerging disease. The proposed programme will also assess the threat of other human pathways, such as the movement of machinery, other vehicles, equipment, gear, and personnel apparel. This programme will target an SFFF application.

**Resilient Forests**

\$2,300,000      \$1,100,000

Based on two years of prior research and the legacy of the GCFF and HTHF research programmes this proposal sets the scene for a multi-year programme to address critical issues outlined in the industry road map and R&D strategy. As one of three research aims within the integrated Resilient Forests programme, RA1 aims to apply innovative and integrated approaches to increase the capability of forest owners/forestry sector to manage future risks and uncertainties contributing to the resilience of forest plantations in New Zealand. This includes application of a portfolio diversification approach to mitigate risks and provide investment options; development of tools and frameworks for anticipating climate threats while reflecting risks perceptions of forest growers and the public (i.e., Social Licence to Operate, SLO); and future proofing forests through adaptive management. RA2 seeks to enhance productivity and wood quality of New Zealand’s radiata pine forests using a whole-systems approach. We will leverage prior research to investigate the influence of genetics, environment, and silviculture (GxExS) on productivity and wood quality, and develop tools to assist forest managers. RA3 aims to enhance the resilience of radiata pine forestry to biotic risks, ensuring increased forest productivity and profitability in an uncertain future. We will further knowledge of key pine needle diseases, allowing quantification and mitigation of risk under climate change, while developing new sustainable and socially acceptable disease management tools that support continued investor confidence and social licence to operate. Research will focus on the development of tools for the surveillance and monitoring of disease, disease forecasting, integration of disease into growth models, optimised silvicultural practices and precision disease control.

**N-fixing Bacteria**

\$57,500      \$57,500

This funding would contribute to a 5-year Endeavour research programme that aims to extend current Trichoderma research, by exploring co-infection of synergistic n-fixing bacteria with Trichoderma as a way of enhancing tree growth and therefore reducing the need for artificial fertiliser.

**Precision Silviculture -Modernising Forestry in the Digital Era**

\$750,000      \$750,000

Initially developed through broad forest sector engagement in 2019, this programme seeks to implement practice change across the key forest management processes within the nursery, planting, pruning and thinning. Intended innovation will include mechanisation and precision/automation advancements to make the recovery of thinned biomass more financially viable and removing labour constraints impacting the viability of pruning. The programme will look to leverage off existing innovation in areas such as remote sensing, terrestrial robotics and geospatial location. It aims to create benefit for all forest owners and explores improvement to manual processes through the use of power-assisted tools and battery-operated devices, as well as novel engineering for use in planting, pruning and thinning. This programme has a strong health and safety component and looks to create new career pathways for the forestry workforce. In addition to levy funding, a substantial commitment from industry to co-fund and provide in-kind support has been obtained. The programme is expected to receive over \$10M of co-funding from MPI over the lifetime of the research.

**Biotech-based durable resistance to fungal forest pathogens**

\$100,000      \$100,000

This project will develop biotech-based solutions to provide robust, low environmental impact, chemical-free strategies to meet existing and future (not yet arrived) fungal and oomycete pathogen challenges for New Zealand’s plantation forestry. The research will identify and inactivate tree disease susceptibility genes (a diverse group of genes with varying roles that when present/functional render plants more susceptible to invading pathogens). The use of gene editing will allow precise and rapid gene inactivation and allow trees to be produced without transgenes (added DNA) which will facilitate outdoor testing and deployment.

**Pre-emptive biosecurity– a unique and immediate opportunity**

\$70,600      \$70,600

Testing the performance of New Zealand radiata pine germplasm in a foreign environment exposed to pathogens and insects currently not present in New Zealand. The research will provide a perspective of the risk of potentially invasive pests and pathogens and new knowledge to enhance the resilience of NZ radiata pine plantations.

New Zealand radiata pine in Spain will be exposed to several potentially invasive pests and pathogens to achieve these aims. The pathogens include, among others, *Fusarium circinatum* (pine pitch canker), *Dothistroma pini*, *D. septosporum* variants (*Dothistroma* needle blight), and *Lecanosticta acicula* (brown spot needle blight). In addition, these trees shall be exposed to potentially invasive insects *Thaumetopoea pityocampa* (pine processionary moth) and *Lymantria dispar* (European gypsy moth). **This project** involves monitoring plants in the laboratory, greenhouse, nursery, and forest stands for the specific purpose of assessing the selection pressures.

**Diversifying Forestry for a Resilient Future**

\$500,000      \$300,000

This proposal aims to build on the successful outcomes of the FGR Specialty Wood Products Research Partnership (SWP) by renewing this to focus on species with wood that is naturally durable and/or high stiffness for high value products as these were ranked high

priorities at the FGR alternative species workshop held 25th May 2021. The SWP is already an industry wide collaborative R&D partnership led by a talented team of forestry and wood products researchers who are committed to a rigorous work programme to enable regional establishment of diverse forests that will support transformational change of NZ's emerging circular bio-economy and improve resilience for future generations.

We propose a strategically focused 'all of supply chain' R&D programme to de-risk emerging species that produce naturally durable/high stiffness wood. Our species include eucalypts, cypresses, redwood and a mix of other species of strategic interest. Our R&D programme in breeding, growing, utilisation and markets will advance the successful establishment of diverse forests to provide for a significant increase in the sustainable production of high value wood products. Through an effective industry extension programme we will encourage and educate growers to plant new forests. We are a successful collaborative team of proven NZ researchers and a diverse group of industry experts.

**Improving the database of Permanent Sample Plots for alternate and contingency species**

\$285,000      \$150,000

Scion advises that there are nearly 700 permanent sample plots for alternative and contingency species around New Zealand, of which nearly 500 have not been measured in the last 10 years.

With the rising interest in these species the NZFFA believes it is important to start a re-measurement programme so that in the future, the relevant growth models and yield tables can be brought up to date.

This project seeks assistance to re-measure a selection of around 300 of these permanent sample plots across the North and South islands; to establish a number of additional plots in suitable locations; and to commission Scion to record and maintain the data.

**The potential for *Abies grandis* as a contingency species for *P. radiata***

\$121,500      \$121,500

In Gwavas forest an *Abies grandis* provenance trial has demonstrated yields greater than 30 tonnes per hectare per annum, unimproved. This level of productivity suggests that should *P. radiata* succumb to pathogens, *Abies grandis* (which is of a different genus and is not likely to be affected by the same pathogens) may be a good commercial substitute. Seed collected from the stand is being propagated for planting in 2022 to replicate the Gwavas trial in a number of locations, to determine its response under different conditions. At the same time, although the timber is widely used in North America, the mechanical properties of New Zealand grown *Abies grandis* have never been assessed, and we want to source some logs and conduct sawing, strength, drying, preservation and durability trials to confirm that it produces good structural timber that is readily treatable with preservatives. By determining grade recoveries, strength and treatability, forest growers will gain the knowledge required to determine whether *Abies grandis* could usefully be a contingency species should *Pinus radiata* fail. The project is consistent with the goals of the Forestry Roadmap in terms of productivity, value, carbon goals and what matters to New Zealanders

**Research Extension Position**

\$125,000      \$125,000

The contract position, expected to commence during the second half of 2022, would provide the capacity to considerably enhance the ability to deliver R&D outputs to forest sector operators.

**Total for projects ranked within pre-approved portfolio allocation**

\$5,380,600

## Small & Medium Enterprise (\$114,800)

Projects within the portfolio allocation	2022 Funding Requested	2022 Funding Approved By Committee
<p><b>Tree Farmer Web Tool - Completion of Tree Farmer</b></p> <p>Tree Farmer is an innovative prototype geospatial web tool developed in 2020 with the aim of improving the harvesting experience of small-scale forest grower’s (SSFG). It does this by raising the grower’s awareness of the issues and decisions they will encounter with harvesting on their property. It will engage them in the process of rudimentary harvest planning while providing underpinning spatial information that drives costs and suggest a checklist of things to consider. This tool operates on the principle that most forestry decisions are driven by factors that are local and spatial, i.e. they are site specific.</p> <p>To complete an accurate production version of Tree Farmer, more functionality is needed that drive decisions, e.g. complex slope calculations from exiting terrain layers and more web links made to complete access to sets of harvesting related spatial information.</p> <p>New functionality that will support forest establishment decisions and builds forest growing knowledge, with full environmental compliance, will be prototyped this year to encourage new forest investment.</p>	\$40,800	\$40,800
<p><b>Geospatial Wind Risk Analysis</b></p> <p>Forest insurance premiums are increasing, and insurance conditions becoming stricter under climate change. The Emissions Trading Scheme has attracted, and continues to attract new forest investors to the Small to Medium Enterprise (SME) category. SME forest growers rely on insurance to cover risk. The size of insured forests ranges up to 2,000hectaresand makes up around 20% of New Zealand’s plantation forest area, and of those 80% include wind cover<sup>1</sup>.This project will provide information on wind risk to support forest growers and forest insurers to adapt to climate change and help to maintain a healthy forest insurance industry. Forest growers need to know how location and silviculture affect the risk of wind damage. Forestry insurance providers need information on how growers reduce risk, and where safer forests are located to attract international under writers. This project will calculate the risk of wind damage nationally to a level useful for individual properties. It will be done using climate change scenarios. The result will be presented in the Tree Farmer planning tool currently hosted on the FGR website. They will help forest growers and insurers make decisions on risk avoidance, new planting, and insurance strategies.</p>	\$59,000	\$59,000
<p><b>Eucalypt Seed Collection</b></p> <p>Further to the recent emphasis on alternative species, the Eucalypt Action Group believes there is a short-term opportunity to gather seed from well known Stringybark eucalypt</p>	\$15,000	\$15,000

stands around the country. This would be used to extend a project that Scion has been working on for several years, to improve eucalypt Germplasm. While Scion has concentrated on the Ash eucalypts and *E. nitens*, no work has been done to secure and improve germplasm from the Stringybarks, which have been the backbone of eucalypt plantings in New Zealand. This group of species is regarded as the best substitute for imported tropical hardwoods for the New Zealand building industry, and complements the ground-durable eucalypts being championed by the Drylands Forest Initiative.

**Total for projects ranked within pre-approved portfolio allocation.**

**\$114,800**

## Training & Careers (\$500,000)

This program is managed and overseen by the Training and Careers Committee whose purpose is to consult on and support a coordinated program on plantation forestry training delivery and training needs. The committee has representation from forest grower representatives (FOA, FFA, Future Foresters, Wood Councils), plus, industry representatives comprising FICA, Competenz (the industry’s ITO), government as well as training providers (School of Forestry, PolyTechs) to ensure the Work Program supports standards and training solutions that deliver on current industry needs.

The committee actively supports the promotion of forestry careers, both directly and by working with and through other agencies.

Projects within the portfolio allocation	2022 Funding Requested	2022 Funding Approved By Committee
<p><b>Training Material</b> Ongoing sourcing, preparation, presentation, promotion of training materials. High quality resources are required to attract suitable high-quality people to the forest industry. Sourcing this information, amalgamation and dissemination is complex as the resources are from a wide range of institutions, geographically spread and must be appropriate to the audience i.e. there can be literacy and numeracy issues. The funding resources sourcing, targeting, creation and delivery. Materials are available for Expos, Schools, etc. and include folders, brochures, and videos (via the T&amp;C portal and data-sticks). Funded activities include promotional activities in Job/Training media.</p>	\$20,000	\$20,000
<p><b>Establish a Vocational Training System for the Forest Industry</b> FRAG aims to define, describe and establish a system that delivers vocational training required by the Forest Industry. Included in its structure will be functions, roles, skills, appointment criteria, and development strategies for personnel, its operating process, governance, quality management and interfaces. During the project, personnel from various contributing agencies must be drawn together and features of the current structure that are of value must be retained.</p>	\$64,000	\$50,000
<p><b>Wood is Good - Primary School / Log Transport Prog</b> Wood is Good uses regional collaboration with all 8 Wood Councils across New Zealand to continue the development and expand on the resources and capabilities to coordinate a national primary schools program based on forestry and log transport. This second year of the program aims at increasing knowledge and the awareness of students, teachers and parents of the role of forestry in their local community and an appreciation of our sector contribution for the economy and lowering emissions. Taking a log truck to 50 primary schools across New Zealand and using full assembly and classroom sessions tailored for age groups to combine tree and carbon knowledge into their school sessions. Integrating</p>	\$40,000	\$40,000

these forestry classroom sessions with online learning opportunities and a suite of resources left at the school for students to complete.

**T&C Promotional Activities**

Promotion of Training & Careers opportunities in the Forestry sector in magazines, newspapers, etc.

\$15,000

\$15,000

**Portal Maintenance and Development**

Forestry Careers Portal update, maintenance and expansion. Ongoing sourcing of data, management of the site, responding to queries and site promotion are key to the success of the portal. Active projects include:

\$20,000

\$20,000

- Identification, sourcing and dissemination of training materials.

To keep the portal functional, up to date and fresh requires a focus to consistently actively promote the site. Due to the number of individuals / institutions, and the geographic spread throughout NZ, keeping the site fresh is complex.

**National District Recruitment Campaign**

To continue the collective promotion and recruitment campaign funded in part for 2020-2021. Targeting improvement in public perception. A vehicle that has been used by other organisations namely the wood councils, NZFOA and MPI in companion campaigns. Directs activity to the Forestry Careers portal. Covering national media, radio, print and digital. Organised and managed by FICA.

\$50,000

\$50,000

**NZIF Future Foresters Support.**

Future Foresters is a Special Interest Group within the NZ Institute of Forestry. They play a pivotal role in expanding the New Zealand forestry industry by attracting school leavers, and others, into careers in forestry and by supporting them in their early career development.

\$30,000

\$30,000

Future Foresters has 5 main objectives:

1. Provide a community for young people in forestry
2. Connect young foresters with those more experienced
3. Provide a relatable face to promote forestry to younger generations
4. Provide a collective voice for young people in forestry
5. Provide career development opportunities to young people in forestry

Future Foresters will continue to develop the community of young (or new) entrants into forestry through Future Foresters. It will:

- Use the community to promote the industry and play an active role in attracting new entrants to the industry whether school leavers or others considering a career change to forestry.
- Develop appropriate resource material through Future Foresters to help encourage school students in their final years of study to consider forestry as a career option.

- Provide training to designated Future Foresters members to promote the industry in schools and careers events. Additionally, Future Foresters will facilitate members in receiving early career development opportunities

Give members a chance to have their say on industry issues through the communications channels of Future Foresters.

**University of Canterbury - Support of Teaching and Research in Forest Engineering / Operations at the School of Forestry (SoF)**

\$100,000      \$100,000

2019 – Year 1 of 3 years \$100,000

2020 – Year 2 of 3 years \$100,000

2021 – Year 3 of 3 : \$70,000

The three year request for a yearly grant to the University of Canterbury School of Forestry commitment will complete in 2021. The School of Forestry (SOF) goal is to provide their graduates with a high standard of knowledge and understanding of harvest planning, harvest system productivity and cost, safety in all aspects of forestry and environmental protection for the landscape we work in. They are consistently identified by the NZ Forest Industry as important skills for young professionals entering the industry. The SOF also looks to continue the learning opportunities for those engaged in forestry by running professional development courses and have developed a graduate level programme with quality research outputs. Currently the SOF only has two staff members that specialise in forest operations (that includes safety and environmental performance), with the second academic position created based on FGLT providing strong industry financial support. With continued Forest Grower Levy investment, the SOF is able to recruit both a Post-Doc to support teaching and research, as well as offer graduate level scholarships to pursue applied research needs

**The Generation Programme – Whakatipua to tatou iwi (Act upon Growing our People)**

\$10,000      \$10,000

The Eastland forest industry solution to the current challenges it faces in attracting, recruiting, training and retaining its work force; particularly with regard to the projected labour growth required to meet the increased harvest, (predicted to exceed 4 million tonnes), over the next 2-5 years.

The industry recognises that training needs to reflect technological development and to also provide a contextual 'real world' learning/training environment.

In developing "The Generation Programme," the Tairāwhiti forest industry, represented by the Eastland Wood Council (EWC), and other stakeholders, have been leading a systems change in the approach to industry training.

The programme is now in its third year.

The Generation Programme provides:

- On and off-site industry training with employers
- An integrated programme with training providers working collaboratively
- Six-week Base Camp Induction Course – providing 'work ready' trainees
- Pastoral care and mentoring support



- Subsidies for employers – flexi-wage, Mana for Mahi
- Clear career pathways across all sectors of the industry
- Driven, designed and supported by industry
- Progressive mapped training programme

The critical success factors of the Generation Programme are:

- The wrap around support and ‘care’ for trainees that includes addressing housing, financial and personal issues
- The people working in the programme
- A mixed approach to skill development, learning and training that integrates workplaces and industry visits
- Ensures trainees have a strong grounding and understanding in the health and safety requirements to work in the industry
- Health and fitness – including healthy eating
- Drug and alcohol education programme, including counselling
- Developing positive work values – e.g. teamwork, communication, reliability
- Strong links to support agencies such as MSD/WINZ

The programme has been embraced by contractors seeing the value of the training generation programme trainees receive.

**Grow Me**

\$60,000

\$60,000

Building on the last two years to develop an understanding and interest from secondary school students in the forest sector. Showcase available careers options and local workplaces by encouraging more young people leaving school to enter our sector. Along with this, develop relationships with the careers advisors and relevant teachers at the schools by educating them in changing trends in our industry and what workplaces are in their communities. Contribute to our members “social license” to operate by providing them a with a platform and capabilities to explain their businesses.

Funding supports the development of an understanding and interest from secondary school students in the forest sector, show cases the available career options and encourages young people leaving school to enter the forestry sector.

Develops relationships with the careers advisors at the schools and educates them in changing trends in our industry and promotes the industry to parents and communities.

This has been identified as a key area of concern by Wood Council board members and in fact right across our industry. It is believed there is a lack of knowledge of all the jobs currently available and the qualifications that are needed right across forestry, transport, shipping and processing, especially when these industries are in a growth phase. There is a lack of young people in our workforce with companies struggling to hire them in such a competitive environment.

**Tokomairiro Forestry Pathways Training**

\$20,000

\$20,000

Funding for year three of a three-year funding request.

A level 2 Forestry Pathways course for young people that will support them to develop their knowledge of, and skills in, the Forestry Industry. This programme prepares young people for work within the industry, providing pathways for students wanting to work in silviculture, logging and supporting industries, and/or tertiary study. Strong regional / industry support.

**NZ Forestry Discovery Centre**

\$60,000      \$30,000

Develop an online “Forestry Discovery Centre” that will draw together all the information relevant to student and public learning about Forestry in New Zealand. This will allow a base where all the information about our sector that is spread across many different sites can be brought together and presented in a way that is easy to access and understand for people outside the forestry sector.

This will be a 3 stage process over 3 years. This funding is for stage one: scope out, design and get the first section of the Discovery Centre working as it relates to the Canterbury / West Coast Region.

The website will have a National and then regional focus. It is a hub where all useful information is downloadable, such as teacher or student resources for work at home situations.

**Social Media Program**

\$25,000      \$15,000

Building on a successful 4 month trial in 2020. Delivery of Training and Career data via social media platforms using a contractor - Grassroots. Comprises info on T&C opportunities via appropriate social media platforms:

- 2 - 3 posts per week on two platforms - a mix of owned and curated posts
- 2 hours of Community Management a week across all relevant platform
- monthly analytics and recommendations.

**Assessor Upskilling – Mechanised Operations**

\$46,200      \$40,000

A pilot programme for upskilling of forestry trainers and assessors in mechanised operations through an off-job block course utilising a mix of harvesting simulators, live machines, and the maintenance workshop at the Mike Hurring Training School. The programme is for 12 assessors in three cohorts of 4 participating in 2 one day block courses over a period of one month.

**Total for projects ranked within pre-approved portfolio allocation.**

\$500,000

## Transportation & Logistics (\$205,000)

Projects within the portfolio allocation	2022 Funding Requested	2022 Funding Approved By Committe
<p><b>Log Truck Safety Council (LTSC)</b>  <a href="http://www.logtruck.co.nz/">http://www.logtruck.co.nz/</a>. Annual contribution to the pan-industry collaborative work between forest owners, operators, researchers, government and enforcement agencies. The LTSC commissions research and directly engages with the Transportation Committee. FOA and FFA are both signatories to an Accord with the LTSC and the Road Transport Forum.</p>	\$20,000	\$20,000
<p><b>Wairoa Judicial Review</b>            Challenge to the Wairoa District Council forest land rating system. Forest land over 100ha is specifically targeted.</p> <p>Concern that this initiative could spread to other councils.            Case will be heard 2022.</p>	\$100,000	\$100,000
<p><b>Dashboard</b>            Develop a “Dashboard” to summarize the o8ooLogtruck reporting data. This will make trend analysis easier and highlight problem areas.</p> <p>Need to promote +ve feedback.</p>	\$5,000	\$5,000
<p><b>Truck Rollover Prevention</b>            Truck roll overs are a significant risk in Log cartage. Roll overs have killed drivers and are a potential risk to other road users. Roll overs take the assets off the road for a long period of time impacting capacity.</p> <p>The objective of this project is to provide the driver in the cab an audible and visual alarm warning that their trailer stability is beyond a threshold so they can react in time to reduce risk of a roll over event. This will also assist the driver in their driving behaviours and provide real time feedback on how their driving effects the entire unit and enables them to adjust their behaviour to avoid alarm triggers in future. In turn creating a safer driver.</p> <p>The project will engage a developer to take an electronic signal from a trailer system such as WABCO and convert this signal into a warning system inside the cab. At present with some telematics we can only see real time data of prime mover (cab) dynamics and not the trailer, which has significant relationship with roll overs.</p> <p>There is also potential to have this data come through to external parties outside of the cab, to allow for coaching in this area.</p>	\$15,000	\$15,000
<p><b>o8oo LOGTRUCK survey</b>            FOA/FFA members are signatories to the Log Transport Safety Accord.</p>	\$10,000	\$10,000

Parties agree to participate in and actively support the objectives and operational requirements of the 0800 public reporting scheme.

Employ a student to visit a range of sites – sawmills, log yards and ports and record how many trucks carry the 0800 signage, and who they are carting for.

Funding will meet employment costs, travel and accommodation.

**Wood is Good / Share the Road**

\$80,000      \$40,000

Develop and produce the resources and capabilities to generate a National Primary Schools program based on forestry and transport safety. This program aims at raising the awareness of students, teachers and parents of the role of Forestry and Transportation in their local community. Using the “Wood is Good /Share the Road” model to gain access to Primary Schools, and using the opportunity to expand on the concept by introducing a “forestry element” to the presentation with a newly produced “Log Truck Safety Video”, social media and website to promote the program.

Three Wood Councils have indicated they prefer to use their own local coordinator so can organise their workshops on a case by case basis with our National Coordinator to provide all resources.

The goal is complete 50 “Wood is Good/Share the Road” days at primary schools across NZ with the help of regional Wood Councils.

**Log Transport Route Calculator – Run budget**

\$15,000      \$15,000

The Transport Committee commissioned SCION to produce a system that can be used to facilitate discussions between forest managers and territorial authorities on roading usage during log transportation.

The system is complete. Funding is sought to allow a number of runs to be commissioned from SCION using the completed calculator

**Total for projects ranked within pre-approved portfolio allocation.**

\$205,000