Forestry Operations			
Business Name:		ABN:	
Business Address:			
Contact Person:	Phone:	Email:	

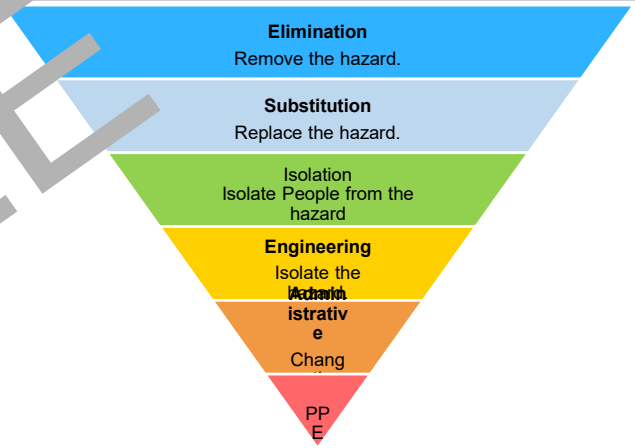
THIS RISK ASSESSMENT IS APPROVED BY THE PCBU OF THE PROJECT		
Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a RISK ASSESSMENT is prepared before the proposed work starts.		
Full Name:		
Signature:	Title:	Date:

CLIENT OR PRINCIPAL CONTRACTOR DETAILS	
Client:	SCOPE OF WORKS
Project Name:	
Project Address:	
Project Manager:	
Contact Phone:	
Date Risk Assessment supplied to Project Manager:	

RISK MATRIX

LIKELIHOOD	INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC	SCORE	ACTION
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE		
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE	3H HIGH	Rev before work
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACU	2M MO RATE	Ensure control measures in place.
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 H	1L LOW	Monitor and keep records.

HIERARCHY OF CONTROLS



Risk Rating & Required Action:

4A	Stop work. The risk is intolerable. E inate the hazar redesign the activity before proceeding. A Safe Work Method Statement (SWMS) or hi er-level authorisati is required.
3H	Review and approve additional c rols b ask arts. Senior supervisor sign-off needed.
2M	Ensure all nominated controls are in ace and effe ive. Proceed with caution; monitor conditions.
1L	Proceed, following standard operating procedures Monitor and keep records.

Consequence Scale:

Consequence	People (injury/illness)	Project / Assets	Compliance / Reputation
Catastrophic	Fatality or permanent total disability	project shutdown	Significant regulator intervention; criminal prosecution
Major	Serious injury/illness (hospital > 5 days)	critical delay	Improvement notice; major media coverage
Moderate	Medical-treatment injury; lost-time > 1 day	moderate delay	Minor breach; adverse client comment
Minor	First-aid only, no lost time	negligible delay	Isolated non-conformance
Insignificant	No injury	no schedule impact	Deviation caught and corrected on site

Notes on Hierarchy of Controls:
Remember to apply controls in the preferred order shown by the coloured pyramid:

1. **Eliminate**
2. Substitute
3. Isolate
4. Engineering
5. Administrative
6. PPE

Always document **why** a lower-order control is accepted if elimination or substitution is not reasonably practicable.

aligned with Safe Work Australia's Managing the risk of fatigue at work *(2023) and ISO 45001:2018 clauses 6–8.*

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
1. WHS Governance, Duties and Due Diligence	• Board and senior management not clearly understanding primary duty of care and due diligence obligations under WHS Act 2011 • Inadequate WHS governance structure for multi-site forestry, logging and milling operations • Lack of clear WHS objectives, performance indicators and reporting for high-risk forestry activities (e.g. helicopter logging, high-altitude seed collection, timber milling) • Insufficient integration of WHS into business planning, procurement and production decision-making • Inadequate oversight of contractors and labour-hire providers involved in log loading, sawmilling and associated activities • Failure to ensure adequate resources for safe operation and maintenance of specialised plant (tree harvesters, log loaders, debarkers, auto felling machines) • Poor communication of safety expectations across geographically remote sites and shifts	High	• Establish a formal WHS governance framework that defines roles, responsibilities and reporting lines from the Board/PCBU to frontline supervisors across all forestry and sawmilling operations • Document and implement a WHS policy endorsed by the Board that explicitly covers high-risk forestry activities including driving log loaders, helicopter logging, timber milling, debarking and sapping operations • Ensure officers exercise due diligence by setting a standing agenda item for WHS at Board and executive meetings, including review of critical risk controls for harvesting, metal detector usage in logs, and maintenance of tree harvesters • Develop measurable WHS objectives and KPIs (e.g. critical control verification rate, serious incident frequency, compliance with pre-start and isolation procedures) and integrate them into management performance reviews • Implement a WHS management system aligned with ISO 45001 or equivalent, ensuring coverage of planning, risk management, consultation, training, incident management and contractor control for forestry activities • Require regular internal governance reviews and external audits of WHS systems, specifically targeting risks from heavy timber handling, helicopter operations and sawmill processes • Develop a corporate standard for contractor and labour-hire management that mandates compliance with WHS Act 2011, verification of WHS systems and monitoring of performance for all forestry, logging and milling contractors • Allocate dedicated WHS resources (advisers and site safety coordinators) with competency in forestry and sawmill risk management to support line managers • Establish a group-wide register of legal and other requirements, with processes to monitor and implement changes to WHS legislation and forestry-specific codes of practice • Implement a structured WHS reporting regime (monthly and quarterly) including lead indicators (training completion, inspections, critical control checks) and lag indicators (injuries, near misses, high-potential incidents)	Medium
2. Strategic WHS Risk Management and Critical Risk Control	• Absence of a systematic risk management process for forestry operations, log handling and timber milling • Inadequate identification of critical risks (e.g. vehicle/plant interaction, struck-by logs, helicopter operations, working at heights for seed collection, plant entanglement) at a corporate level • Inconsistent risk assessment quality between harvesting sites, sawmills and seed collection teams • Failure to capture and assess system-level hazards associated with	High	• Implement a corporate WHS risk management procedure consistent with WHS Regulation, requiring formal identification, assessment and control of risks across all forestry-related business units • Develop and maintain a critical risk register for forestry operations that includes, at minimum: mobile plant (log loaders, harvesters), falling/rolling logs, helicopter logging, high altitude work, sawmilling, debarking, sap extraction and energy-isolated maintenance • Standardise risk assessment methodologies (e.g. bow-tie or similar) for high-risk activities so that system and management controls (training, supervision, design, maintenance) are explicitly identified and verified • Require that new or changed operations (e.g. introduction of new auto felling machine software or changes to metal detector systems) trigger formal change management and risk review before implementation	Medium

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
	programming auto felling machines and metal detector usage in fresh cut logs • Risk assessments focusing only on task steps rather than underlying management system failures • Poor linkage between risk assessments and actual controls implemented in procurement, design, rostering and maintenance		• Ensure cross-functional participation in risk assessments (operations, maintenance, WHS, helicopter contractors, supervisors) to capture operational, engineering and management issues • Create and maintain site-specific risk registers for each harvesting area, log yard and sawmill, linked to the corporate register and reviewed at least annually or after major changes or incidents • Establish a process for regular critical control verification (e.g. checking enforcement of exclusion zones around log loaders, verification of lock-out/tag-out procedures on saws and debarkers, confirmation of flight safety procedures for helicopter logging) • Integrate WHS risk information into business planning, budgeting and scheduling so production targets do not override critical safety controls • Provide targeted training for managers and supervisors in WHS risk management techniques and in recognising weak or ineffective administrative controls • Implement a process to share learnings from incidents and near misses across all sites, updating risk assessments and controls when systemic issues are identified	
3. Safety Leadership, Culture and Consultation	• Production-driven culture that normalises unsafe practices in harvesting, log handling and sawmill operations • Insufficient consultation mechanisms with workers and Health and Safety Representatives (HSRs) on changes affecting forestry and milling work • Remote and seasonal workforce (e.g. seed collectors, helicopter logging crews) not integrated into organisational safety culture • Workers reluctant to report hazards or near misses involving log loaders, tree harvesters, debarkers, or helicopters due to fear of blame or job loss • Poor leadership capability among frontline supervisors to manage WHS expectations, particularly in high-pressure logging and milling environments	High	• Implement a safety leadership program for managers and supervisors that emphasises visible commitment to WHS, active field engagement and reinforcement of safe behaviours over production pressure • Establish and support elected HSRs across harvesting crews, log yards, sawmills and seed collection teams, ensure they are provided with training, paid time and access to management • Develop structured consultation forums (e.g. monthly toolbox safety meetings, joint management–HSR committees) where system issues related to log handling, plant maintenance and helicopter work can be raised and resolved • Create and enforce a non-punitive hazard and near-miss reporting policy, with simple reporting channels suitable for remote and field-based workers (phone app, hotline, paper forms) • Require supervisors to conduct regular safety interactions (e.g. field safety walks, mill floor visits) focused on listening and identifying systemic issues such as unrealistic production demands or inadequate staffing • Communicate clear organisational expectations that work is to be stopped if controls for high-risk activities (e.g. helicopter logging, driving log loaders near ground crews, operating saws without guarding) are not in place • Include WHS leadership performance criteria in supervisor and manager performance appraisals, including quality of incident investigations, responsiveness to concerns and support for training • Ensure seasonal and contractor personnel are included in consultation processes and communication channels, including translation support where required • Provide regular feedback to workers on actions taken in response to their safety concerns to reinforce trust in the consultation process	Medium
4. Contractor and Labour-Hire Management	• Inadequate vetting of logging, helicopter, transport and sawmilling contractors' WHS systems	High	[redacted]	Medium

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
	• Confusion over overlapping duties between PCBUs where contractors operate log loaders, debarkers or auto felling machinery on company sites • Work practices for contractors (e.g. helicopter crews, high altitude seed collectors) not aligned with principal's WHS standards and procedures • Insufficient induction and supervision of contractor and labour-hire workers performing high-risk work near heavy timber logs and moving plant • Lack of clear contractual requirements regarding maintenance standards, training, incident reporting and fatigue management		[redacted]	
5. Plant, Equipment and Technology Management	• Inadequate selecti[redacted]esign o[redacted] plant used in forestry, including log loaders, tree harvesters, debarkers[redacted]uto felling machines, sawmill[redacted] metal detectors • Plant without appropriate guarding, rollover protection, falling object protection or ergonomically sound controls • Uncontrolled software changes or programming errors in auto felling machines leading to unexpected movements or felling patterns • Incompatibility between helicopter lifting gear and log configurations, or poorly managed lifting devices for handling heavy timber logs	High	[redacted]	Medium

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
	• Lack of documented engineering standards for modification of plant (e.g. saw guards, debarker in-feeds, log loader attachments) • Inadequate management of plant safety features such as emergency stops, interlocks, proximity sensors and metal detector alarms		[redacted]	
6. Plant Inspection, Maintenance and Asset Integrity	• Breakdown or failure of critical plant such as tree harvesters, log loaders, saws, conveyors and debarkers due to poor maintenance systems • Uncontrolled release of energy during maintenance and repair work (e.g. hydraulic, pneumatic, electrical, mechanical) on forestry equipment • Inconsistent applicati[redacted]iation, lock-out and tag-out [redacted]ocedures during maintenance on h[redacted]esters, sawmill equipment and de[redacted]king [redacted] • Deferred or reactive maintenance driven by production demands, increasing the likelihood [redacted]phic failures such as log loader [redacted] or saw blade failure • Inadequate recording of inspections, defects and rectifications, leading to known issues being left unaddressed • Maintenance work on elevated or remote machinery (including helicopter-related gear and seed collection equipment) without proper planning	High	[redacted]	Medium

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
7. Competency, Training and Authorisation	• Operators of log loaders, tree harvesters, debarkers, sawmills and auto felling machines lacking formal competency and site-specific training • Insufficient training for workers engaged in helicopter logging, high altitude seed collection and sapping operations • Maintenance staff not adequately trained in safe systems for complex machinery, including isolation, working at heights and handling of hazardous energies • Inconsistent induction processes across sites, leading to gaps in understanding of local hazards, emergency procedures and reporting requirements • Supervisors not trained in WHS obligations, risk manage[illegible]and incident investigation[illegible]hin forestry and milling contexts	High	[redacted]	Medium
8. Operational Planning, Scheduling and Fatigue Management	• Production targets and s[illegible]dules for harvesting, log loading, debarking and milling that encourage risk-taking and bypassing of controls • Long shifts, night work and remote operations contributing to worker fatigue, particularly for vehicle and plant operators and helicopter logging crews • Seasonal peaks (e.g. seed collection periods, high-demand milling runs) managed without adequate staffing or rest breaks • Inadequate journey management for drivers transporting logs or travelling	High	[redacted]	Medium

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
	between remote forestry sites and sawmills • Poor planning for weather-related and terrain-related risks, especially for helicopter operations, high altitude seed collection and steep-slope harvesting		[redacted]	
9. Site Layout, Traffic and Log Handling Systems	• Poorly designed log yards, mill yards and landing areas leading to conflicts between pedestrians, log loaders, trucks and other mobile plant • Inadequate systems for stacking, storing and moving heavy timber logs, increasing the risk of log collapse, roll-away or crushing incid[redacted] • Unclear or inconsi[redacted]nt use of exclusion zones a[redacted]nd loading debarking, sawing[redacted]d log [redacted] operations • Inadequate planning for helicopte[redacted] landing zones, sling loadi[redacted] and ground crew positioning du[redacted] helicopter logging • Insufficient lighting, signage and delineation in operational areas, particularly for night or low-visibility operations	High	[redacted]	Medium
10. High-Risk Work Systems (Helicopter Logging and High Altitude Seed Collection)	• Inadequate risk management for helicopter operations including sling loads of heavy timber logs and personnel insertion or retrieval	High	[redacted]	Medium

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
	• Poor coordination between pilots, ground crews and log loader operators during helicopter logging • High altitude seed collection and tree climbing conducted without robust systems for working at heights, rescue and emergency response • Rapidly changing weather and terrain conditions increasing risks of loss of control, dropped loads or stranded personnel • Insufficient emergency planning for helicopter incidents, including crash, forced landing or load loss in remote forestry areas		[redacted]	
11. Sawmill and Debarking Process Safety Management	• Complex sawmill and debarker processes with multiple energy sources and moving parts creating entanglement, amputation or crush risks • Inadequate guarding, interlocking and emergency stop systems on saws, conveyors, debarkers and bark stripping equipment • Poorly defined operating envelopes and safe operating procedures for high-speed timber milling and log debarking • Uncontrolled build-up of bark, sap, dust and offcuts leading to fire, slip and housekeeping hazards • Ineffective coordination between operators, maintenance and cleaning crews, particularly during shift changes and breakdowns	High	[redacted]	Medium

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
			[redacted]	
12. Hazardous Substances, Sap and Environmental Exposures	• Exposure to wood dust, bark particles and other airborne contaminants during sawmilling, debarking and bark stripping operations • Contact with sap, resins and chemicals used in sapping operations, maintenance or wood treatment leading to dermatitis or respiratory sensitisation • Inadequate management of fuel, oils, lubricants and cleaning agents used on forestry machinery and sawmills • Poor ventilation in enclosed milling o debarking areas increasing concentration of airborne contaminants and fumes • Inadequate systems for spill management, was disposal and environmental pro tion in re forestry sites	Medi	[redacted]	Low
13. Use of Metal Detectors in Fresh Cut Logs	• Failure to detect embed al in logs resulting in catastrophic equipment damage or ejected fragments during sawing or debarking • Inadequate procedures for responding to metal detector alarms and isolating suspect logs • Operators not trained in the limitations and correct use of metal detection technology • Poor integration of metal detection results into production planning, leading to bypassing of detection steps under time pressure	High	[redacted]	Medium

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
			[redacted]	
14. Emergency Preparedness and Response	• Delayed or ineffective response to serious incidents such as crush injuries, entanglement, helicopter incidents, falls from height or fires in sawmills and log yards • Lack of coordinated emergency procedures between forestry sites, helicopter contractors, seed collection teams and sawmills • Inadequate first aid coverage, equipment and training for remote and high-risk locations • Poor communication systems and location identification for rapid respons in remote harvesting and seed collectio areas • Emergency plans t updated to reflec changes in site lay t, plant or operations	High	[redacted]	Medium
15. Incident Reporting, Investigation and Continuous Improvement	• Under-reporting of incidents, near misses and hazards related to logging, milling and helicopter operations • Superficial incident investigations that focus on worker error rather than system and management failures • Failure to implement and sustain corrective and preventive actions from incident findings • Lack of organisation-wide learning from serious incidents at one site affecting similar operations elsewhere	High	[redacted]	Medium

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
			[redacted]	

EMERGENCY RESPONSE – CALL 000 FOR EMERGENCIES

Ensure to have an Emergency Management Plan in place as well as adequate numbers of trained first aid staff with easy access to fully stocked first aid kits, rescue equipment, material safety data sheets, adequate access to emergency communication equipment and fire-fighting equipment suitable for all classes of fire and ignition sources.

LEGISLATIVE REFERENCES

RELEVANT LEGISLATION AND CODES OF PRACTICE. DELETE THE LEGISLATIVE REFERENCES ANY STATE THAT ARE NOT APPLICABLE

Queensland & Australian Capital Territory
Work Health and Safety Act 2011
Work Health and Safety Regulations 2011
Legislation QLD: https://www.worksafe.qld.gov.au/laws-and-compliance/work-health-and-safety-laws
Codes of Practice QLD: https://www.worksafe.qld.gov.au/laws-and-compliance/codes-of-practice
Legislation ACT: https://www.worksafe.act.gov.au/laws-and-compliance/acts-and-regulations
Codes of Practice ACT: https://www.worksafe.act.gov.au/laws-and-compliance/codes-of-practice

New South Wales
Work Health and Safety Act 2011
Work Health and Safety Regulations 2025
Legislation NSW: https://www.safework.nsw.gov.au/legal-obligations/legislation
Codes of Practice NSW: https://www.safework.nsw.gov.au/resource-library/list-of-codes-of-practice

Northern Territory
Work Health and Safety (National Uniform Legislation) Act 2011
Work Health and Safety (National Uniform Legislation) Regulations 2011
Legislation NT: https://worksafe.nt.gov.au/laws-and-compliance/workplace-safety-laws
Codes of Practice NT: https://worksafe.nt.gov.au/forms-and-resources/codes-of-practice

South Australia
Work Health and Safety Act 2012 (SA)
Work Health and Safety Regulations 2012 (SA)
Legislation for SA: https://www.safework.sa.gov.au/resources/legislation
Codes of Practice for SA: https://www.safework.sa.gov.au/workplaces/codes-of-practice#COPs

Tasmania
Work Health and Safety Act 2012
Work Health and Safety (Transitional and Consequential Provisions) Act 2012
Work Health and Safety Regulations 2012
Work Health and Safety (Transitional) Regulations 2012
Legislation for TAS: https://worksafe.tas.gov.au/topics/laws-and-compliance/acts-and-regulations
Codes of Practice for TAS: https://worksafe.tas.gov.au/topics/laws-and-compliance/codes-of-practice

Details of permits, licenses or access required by regulatory bodies (add or delete as required):

- Permits from local council
- Authorisation to commence work
- Any required documents.

Victoria
Occupational Health and Safety Act 2004
Occupational Health and Safety Regulations 2017
Legislation VIC: https://www.worksafe.vic.gov.au/occupational-health-and-safety-act-and-regulations
Codes of Practice VIC: https://www.worksafe.vic.gov.au/compliance-codes-and-codes-practice

Western Australia
Work Health and Safety Act 2020
Work Health and Safety Regulations 2022
Legislation Western Australia: https://www.commerce.wa.gov.au/worksafe/legislation
Codes of Practice WA: https://www.commerce.wa.gov.au/worksafe/codes-practice

Safe Work Australia Links
Law and Regulation (All States): https://www.safeworkaustralia.gov.au/law-and-regulation
Model Codes of Practice: https://www.safeworkaustralia.gov.au/resources-publications/model-codes-of-practice

Model Codes of Practice

- Managing noise and preventing hearing loss at work
- Confined spaces
- Labelling of workplace hazardous chemicals
- Managing risks of hazardous chemicals in the workplace
- Welding processes
- First aid in the workplace
- Managing the risk of falls at workplaces
- Hazardous manual tasks
- Managing the risk of falls in housing construction
- Managing electrical risks in the workplace
- Demolition work
- Excavation work
- Work health and safety consultation, cooperation and coordination
- Managing the work environment and facilities
- How to manage work health and safety risks
- Managing risks of plant in the workplace
- Construction work