

PAN PAC FORESTS FIRE PLAN



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1. Purpose

This Plan outlines Pan Pac's approach to Fire Management and the interaction with FENZ to manage wildfires in the estate and neighbouring forests. This Fire Plan details the planning and activities to support the policy under these sections.

2. Background

On 30 June 2017, the Forest and Rural Fires Act 1977 and associated Regulations were repealed and replaced by the Fire and Emergency New Zealand (FENZ) Act 2017. This ended a long history of active forestry involvement in rural fire management.

3. 2017 Act

The 2017 Act placed the legislative responsibility for prevention, response and suppression on a new organisation, Fire and Emergency New Zealand (FENZ).

Pan Pac has maintained strategic response capability and infrastructure supporting wildfire response, which can be made available to FENZ for any wildfire in the Hawke's Bay district. Pan Pac's focus is on reduction and readiness. During the response phase Pan Pac will work alongside FENZ.

4. Pan Pac and FENZ Partnership

Pan Pac in partnership with FENZ, will minimise the risk to human life and forest assets within its estate, through:

- Reduction of fire risk through fire risk education, hazard identification, risk management.
- Readiness of fight fighting resources for early response, estate infrastructural readiness and support information and the firefighting resources available.
- Respond in a safe, effective and thorough manner to all wildfire events.
- Recovery: support for firefighters, rehabilitation of the forest estate, complete fire investigations, reinstatement of equipment, debriefs, reviews and financial matters.

Pan Pac's focus and allocation of resources will be centred on Prevention, Reduction and early Response. Pan Pac will play a supportive role in suppression of any large-scale wildfire in Hawke's Bay making our resources and expertise available to FENZ within the constraints of our own business objectives. Pan Pac believes its forest estate will be better protected from fire with Pan Pac playing a larger role by partnering with FENZ in fire prevention and initial response than delegating total responsibility to FENZ.

5. Pan Pac Estate

Pan Pac Forests estate consists of 5 major forests Tangoio, Mohaka, Esk, Gwavas and Kaweka. These forests together with some smaller holdings total 38,000ha Net Stand Area (NSA) plantation forest within 48,000ha of land throughout Hawke's Bay. They are typically rolling to steeper terrain with poor or restricted access requiring 4WD capabilities consisting of mixed age classes, multirotational forests and some newly established farm to forest conversions. Gwavas, Kaweka, Tangoio, Esk and Mohaka border the Department of Conservation (DOC) Estate and all forests are surrounded by a mixture of commercial forest and farmlands. Several public access easements exist through the forests to surrounding DOC estate. The Hawke's Bay Mountain Bike Club has been established within the Tangoio Blocks behind the Whirinaki Mill.

The variability in rainfall from October to April gives rise to mixed rural fire seasons between periods of lush growth and moisture deficits that can lead to drought conditions. During dry fire seasons strong, West to North-West winds are predominant over the region, and are warm and dry föhn winds. Temperatures may range from 27–40ºC, with relative humidity between 10% and 40%. The district averages 2,200 hours of sunshine annually.

As Hawke's Bay is a popular holiday and tourist area, the population in the rural areas increases during October to April with tourists visiting the countryside and using nature trails, walkways, river/beach areas, and camping sites, many of which border Pan Pac's estate.

Table 1 Pan Pac Forest estate map



6. Role

FENZ have the legislative responsibility for <u>prevention, response and suppression of all fires in NZ.</u>

As a local business owner, with a large forest estate, Pan Pac has a supporting role in any fire risk reduction and response. This support role sets the context for all subsequent planning. Pan Pac has maintained strategic response capability and infrastructure supporting wildfire response, which could be made available to FENZ to any wildfire in the Hawke's Bay district.

7. Fire Risk Management

Pan Pac maintains an active risk management approach documenting hazards, risks and methods for managing these throughout the year to reduce the risk of wildfire within our estate. When doing so, Pan Pac considers items such as local fuel loadings (i.e. harvesting & silvicultural debris, weed species wood stocks), current weather conditions, Fire Weather Indices, long range weather forecasts, local activity, and macro environments.

8. Policy

Pan Pac in partnership with FENZ, will minimise the risk to human life and forest assets within its estate, through:

- Reduction of fire risk through fire risk education, hazard identification, risk management.
- Readiness of firefighting resources and infrastructure.
- Respond to wildfire events in a safe, effective, and thorough manner.
- Recovery support for firefighters, rehabilitation of the forest estate, reinstatement of equipment, investigate fires, and review processes.

9. Reduction

9.1. Reduce Risk

Pan Pac forest wildfires will be minimised through access control, buffers around ignition points, fuel management, operational housekeeping, hazard and risk management and education. Pan Pac's reduction plan is focused on identifying fire-related risks to human life and forest assets; taking steps to eliminate them and reduce the likelihood of occurrence.

9.2. Monitoring

Pan Pac will monitor high wildfire risk area/s as below during elevated risk periods.

Table 2: High Wildfire Risk Areas

Risk Area/s	Source/s of Ignition
Powerline corridors	Contact with or faults from powerlines; vehicle or machinery strikes; hot work activities
Newly established forest	Grass fires, machinery heat or sparks, vehicle exhausts, discarded smoking materials, fires spreading from neighbouring properties
Cut Over (high fine fuels, desiccated vegetation)	Machinery and equipment sparks, hot exhausts, friction, ember attack, discarded smoking materials
Weedy areas (gorse, blackberry, broom)	Rapid ignition from sparks, machinery contact, hot work, cigarettes, ember spread
Skid sites of recently harvested areas	Heat build-up in slash, bark, mulch or stockpiled organic material; machinery heat; residual hotspots
Public access area	Vehicles, public smoking, campfires/open flames, vandalism/arson, discarded glass or other ignition sources

9.3. Access

- No fires are permitted at any time in our estate unless authorised by the General Manager of Forests.
- Access to the estate is restricted to authorised personnel.
- Recreational access is a permitted activity and will cease as required during periods of high fire risk. Public access (easements) to forest roads may be closed. Relevant organisations to be notified of these pending road closures so that they can advise public via their website.

9.4. Plant and Machinery

9.4.1. Machinery

- All crews entering the forest must carry firefighting equipment appropriate to their work, in accordance with Table 3: Minimum Fire Requirements for Forestry Vehicles which is outlined as below.
- Machinery equipped with manufacturer-installed deluge (fire suppression) systems must be always maintained in full working order.
- All machinery and equipment used in forestry operations are subject to preventative fire control requirements.

9.4.2. Spark Suppression Measures

- All machinery (including chainsaws, motorbikes, and quads) must be fitted with approved spark arrestors or equivalent spark suppression devices, which are to be regularly inspected and maintained in effective working condition.

9.4.3. Inspection and Certification

- Spark arrestors, deluge systems, and onboard firefighting equipment must be inspected and tested at least every 12 months. Machinery and equipment owners are required to formally declare their compliance and operational fitness to Pan Pac.

9.4.4. Maintenance and Control

- All machinery must be maintained in good working order and kept free of combustible debris, including needles, wood chips, grease, and oil buildup. Attention must be given to:
  - High-temperature areas around engines and exhaust systems
  - Spark suppression components
  - High-friction and heat-generating points (e.g. slew rings, bearings, and backline pulleys)

9.4.5. Operational Controls

- Operations must be planned and carried out to avoid creating friction or heat points between machinery and combustible materials. This includes, but is not limited to, managing risks associated with hauler ropes, pulley systems, and other moving components.
- Wire Rope & Hydraulic Hoses
- All harvesting operations are to remove used wire rope and hydraulic hoses from the forest.

Table 3: Minimum Fire Requirements for Forestry vehicles

Designation	Equipment
Vehicles – Light	1 shovel, minimum 0.9kg dry powder extinguisher
Vehicles – Heavy	1 shovel, minimum 1.5kg dry powder extinguisher
Chainsaw Operators	personal fire extinguishers
Harvesting & Production Thinning	800-1000L pumped reservoirs with 30m hose available for firefighting and wash downs on the work site
Skidders, bulldozers, graders and excavators	1 shovel per machine and either 10 litre water extinguisher and a 1.5kg dry powder extinguisher, or 9 litre foam extinguishers
Loaders and haulers	9 litre foam extinguisher
Fuel Driven Machinery	Properly fitted turbo charger in good working order, if not: an exhaust fitted with a spark arrestor. (Includes chainsaws, motorbikes, mobile welders etc.)
Fuel Dumps	2 x 1.5kg dry powder extinguishers or 2 x 9 litre foam extinguishers
Fuel Trailers	9 litre foam extinguishers
Crews of 5 people or less	1 knapsack pump, 1 shovel per person and 40 litres of water
Crews of 6 people or more	2 knapsack pumps, 1 shovel per person and 40 litres of water per knapsack
UAV's	LiPo compliant 1m x 1m fire blanket
LiPo Batteries	LiPo bag sufficient for the number of batteries carried

9.5. Setbacks

- Powerline Corridors: Maintain required clearances (no vegetation within 4 m of conductors). Do not plant within 30 m of powerlines. Manage corridors to minimise the accumulation of highly flammable vegetation, such as species prone to rapid ignition and fire spread.
- Fire breaks: Establish and maintain fire breaks where required to protect assets, as agreed with FENZ. Fire breaks may be constructed or widened using heavy machinery where necessary to support wildfire suppression. Fire breaks may also be constructed/managed through spraying agrichemicals and grazing management practices.

9.6. Operational Restrictions, Fire Codes, Education and Awareness

- Fire Codes & Restrictions: Apply operational restrictions in line with Pan Pac Fire Codes, triggered by Fire Weather Index (FWI) and Build-Up Index (BUI), to reduce ignition risk and ensure preparedness.
- Communication & Awareness: Provide regular updates to contractors on wildfire risk and applicable restrictions, with increased frequency during the fire season.
- Signage: Maintain clear and visible "No Fires" signage at key forest access points and operational areas.
- Work site Practices: Reinforce good site management practices across all sites to minimise potential ignition sources.

9.7. Hot Work

- All operations involving hot work (e.g. welding, gas cutting, grinding) must obtain an approved hot work permit from the Technical Forester, Forester or Forestry Co-ordinators prior to commencing work at hotworks@panpac.co.nz(refer Appendix G).

9.8. Spontaneous Combustion

- Manage slash at skid/landing sites to reduce spontaneous combustion risk by:
- Minimising fine materials (e.g. bark, fines) in slash piles.
- Avoiding burial of green material or mixing soil into piles, as this increases microbial heat generation.
- Only using soil capping where conditions are suitable (predominantly clay soils and airtight application). At Pan Pac it is 3m of slash to 1m of soil on top.
- Keeping slash piles free of foreign or combustible contaminants (e.g. metal, wire rope, oily rags).
- Constructing piles on stable, well-drained ground (avoid gullies and steep areas).
- **Limiting slash pile height to a maximum of 3m.**

9.9. Planned Fire

- The use of planned fire may be undertaken where appropriate to support forest management objectives, including silvicultural outcomes, wildfire risk reduction, fuel management, training, and ecosystem health. Planned burns shall be designed, authorised, and implemented to achieve the intended management objectives while minimising adverse impacts on neighbouring properties, infrastructure, the environment, and public activities.
- Appropriate controls shall be established for all planned fire activities, including burn planning, weather assessment, resource requirements, communications, and contingency arrangements. Consideration shall be given to smoke management and the potential impacts on neighbouring landowners, road users, and surrounding communities.
- Where planned fire is used for training, slash management, or other operational purposes, suitably trained personnel and adequate resources shall be available to ensure the fire remains within the planned area and can be effectively contained and extinguished if required.
- All planned burning activities shall be conducted in accordance with applicable regulatory requirements, fire permit conditions, and any restrictions imposed by FENZ or other relevant authorities.

10. Readiness (ensuring response readiness)

10.1. Purpose

Fire risk will be managed to minimise harm to people and damage to forest assets through risk assessment, fire weather monitoring, trained personnel, appropriate equipment, and preparedness.

10.2. Training

- Pan Pac has a Service Level Agreement (SLA) with FENZ and will consult and confirm with FENZ the personnel numbers to be trained and made available before the fire season. FENZ will advise the number of personnel it agrees to train and deliver wildland firefighting training. FENZ maintains a training database and ensures training is delivered to national standards.
- FENZ is provided with information on Pan Pac's firefighting equipment. Pan Pac operates with FENZ to support wildfire response within and outside its estate. Pan Pac retains its discretion over the availability and duration of its resources.
- All personnel required to work on wildfire incidents must hold US3285 (or equivalent industry standard) as the minimum qualification for fireground deployment.

10.3. Exercises and Readiness Activities

- Pan Pac may participate in wildfire exercises, simulations, and practical training activities to maintain operational readiness and strengthen coordination with FENZ, contractors, neighbouring landowners, and other stakeholders.
- Exercises may include wildfire deployment, communications, command and control, water supply operations, equipment deployment, initial attack activities, and incident management.
- Lessons identified during exercises shall be incorporated into operational procedures, training programmes, and future planning where appropriate.

10.4. Initial Attack Crews

- Pan Pac maintains initial attack capability through trained crews and equipped fire appliances, including secondary pumping systems. These crews can undertake initial attack on fires within accessible areas using high-pressure water systems, including deployment of hoses and pumps, and dry firefighting techniques in challenging terrain.
- Initial attack capability is supported through regular refresher training on equipment and the use of personnel experienced in working in steep and difficult forest terrain.
- Pan Pac maintains initial attack capability through a combination of staff and contractor personnel, organised into crews and assigned to operational areas and command structures as required.

Table 4: Initial Attack Crews

Initial Attack Crews	Kaweka /Gwavas	Tangoio / Esk	Mohaka
Fire Operational Managers	Dave Coe, Gibby Te Ngahue	Richard Airey, Conor Moorhead	Russell Schaare, Gerald Haynes, Peter & Linda Lister
Crew Leaders	Gibby Te Ngahue, Mark Brewer	Mark Brewer	Peter & Linda Lister, Pam Haynes, Vanua Levu foreman
Fire fighters	Forestry One Ltd, Magpine Ltd, Lionsgate Security	Magpine Ltd Lionsgate Security	Vanua Levu Ltd Lionsgate Security

- Initial attack crews undertake scheduled refresher training during the fire season to maintain competency.
- Pan Pac maintains additional personnel to support wildfire response, including mop-up and recovery operations.
- Where appropriate, Pan Pac personnel undertaking patrol or forest security activities may support early response in areas of elevated fire risk, including forest boundaries.

10.5. Standby

- During periods of elevated fire risk, Pan Pac may request aerial support to be on standby for specific operations or locations. This may be in addition to air support coordinated through FENZ.
- During the fire season and periods of high or extreme fire danger, initial attack crews are equipped with wildfire PPE, including helmets and fire-resistant clothing as per FENZ requirements and, carried in crew vehicles to support early initial response.
- Within capacity constraints, fire response crews (e.g. fire watch or standby) may be positioned to support high-risk operations such as harvesting and thinning during periods of elevated fire risk, as defined by Pan Pac fire codes.
- Within capacity constraints, Pan Pac semi-tanker trailers may be positioned to support operations during periods of elevated fire risk. These units are typically equipped with portable pumps and configured for towing, providing additional water supply and support to fire response crews, particularly where water is limited or remote from the operational area.

10.6. Auditing

- Fire gear is subject to regular audits during the fire season, monthly, to ensure operational readiness.
- Fire dams and water points are assessed prior to the fire season for access (aerial and ground) and capacity, with any required maintenance actions identified and planned for implementation ahead of the following fire season.
- Harvesting Operations will be monitored using the Daily Crew Preparedness Checklist (Appendix F).

10.7. Notification

- During the fire season, Pan Pac monitors FENZ fire weather updates and local conditions to assess fire risk and inform fire code settings and operational decisions.
- During the fire season, the forestry team distributes regular fire summaries and updates on requirements under Pan Pac fire codes to contractors.
- FENZ provides Pan Pac with access to its fire notification systems to support the reporting and response to fires.

10.8. Infrastructure

- Pan Pac maintains forest infrastructure, including water points and roading networks, to support wildfire response and enable effective access for FENZ and firefighting resources.

10.9. UAV Operations

- Pan Pac may utilise unmanned aerial vehicles (UAVs) to support wildfire readiness, response, and recovery activities.
- UAVs may be used for fire detection, size-up, hotspot identification, perimeter mapping, situational awareness, monitoring of remote areas, and post-fire assessment.
- UAV operations shall be conducted in accordance with applicable aviation requirements and coordinated with FENZ and any aircraft operating within the incident area.

10.10. Water Points

- Water supply points (e.g. rubber-lined dams, earth dams, and streams) are established at strategic locations to support safe and effective access for firefighting vehicles and pumping operations.
- Water points are provided within each forest and are positioned to support wildfire response.
- Access to water points is maintained to enable use by rural fire appliances and self-pumped trailers for filling and deployment.
- Where practicable, water points are located at permanent water sources with existing road access.
- Where lined reservoirs (rubber dams) are installed for ground-based use, a typical minimum capacity of 90,000 litres is provided. Installations at helipad sites and airstrips are typically designed with a minimum capacity of 200,000 litres.
- Water points are signposted, included on fire maps, and their nominal capacity recorded within the fire management plan.

10.11. Forest Roads

- Forest roads are designed and maintained to support logging truck access and are generally suitable for rural fire appliances. Road conditions and accessibility may vary, particularly in low-use areas, and may limit the safe use of urban fire appliances.
- Drive to the speed limits and road conditions. If no speed limit is posted, the maximum speed is limited to 50 km/hr.
- Designated road ends, typically located at skid sites, may provide turning areas suitable for firefighting appliances. These locations may be identified within fire management planning where appropriate.
- Forest access routes for identification on Maps are classified into one of two classes and maintained to that standard:
- Secondary Road / Arterial (solid line): These roads are maintained in a condition that allows safe and effective access for fire appliances during initial attack. Passing bays may be provided at appropriate intervals (typically up to 200 metres) to allow for two-way traffic flow where practicable. Road ends may provide suitable turning areas, with additional turning opportunities available along the route where possible.
- Track (dotted line): Tracks may require inspection using a light 4WD vehicle before determining their suitability for fire control activities.

10.12. Firefighting Equipment

- Equipment and resources sufficient to support initial response, initial attack, and mop-up operations are maintained at suitable locations. These are inspected regularly (at least annually) and supported by an ongoing maintenance programme. The current listing is as follows:

Table 5: Fire Response Equipment

Functioning Resource / Capability	Gwavas	Kaweka	Esk	Tangoio	Mohaka	TOTAL
Fire trucks / engines	1.0	1.0	1.0	2.0	2.0	7.0
Slip-on units	1.0	1.0	0.0	0.0	0.0	2.0
Fire / smoke-chaser trailers	0.0	1.0	0.0	1.0	2.0	4.0
Tanker / water trailers	1.0	0.0	0.0	0.0	2.0	3.0
Monsoon bucket trailers	0.0	0.0	0.0	0.0	1.0	1.0
Wajax Pumps	1.0	5.0	1.0	3.0	2.0	12.0
Rega Units	3.0	8.0	1.0	3.0	7.0	22.0
Scotty Units	1.0	4.0	1.0	1.0	1.0	8.0
Aqualite Pumps	0.0	0.0	0.0	0.0	0.0	0.0
Motor Pumps — Other	0.0	6.0	0.0	0.0	6.0	12.0
Portable Dams — 250 L	0.0	0.0	0.0	0.0	2.0	2.0
Portable Dams — 5,000 L	0.0	0.0	0.0	0.0	1.0	1.0
Portable Dams — Size Not Recorded	3.0	3.0	2.0	0.0	0.0	8.0
Shovels	2.0	7.0	7.0	8.0	9.0	33.0
Slashers	1.0	5.0	2.0	1.0	2.0	11.0
Axes	0.0	2.0	2.0	1.0	0.0	5.0
McLeods	0.0	3.0	4.0	0.0	0.0	7.0
Rakes	0.0	5.0	3.0	2.0	1.0	11.0
Overalls / Coveralls	0.0	9.0	1.0	0.0	0.0	10.0
Hydroblenders	1.0	1.0	1.0	1.0	4.0	8.0
Foam Containers / Units	17.0	40.5	4.0	8.0	29.5	99.0
Soap Capsules / Sachets — Total Available	4.0	45.0	3.0	0.0	122.0	174.0

FUNCTIONING HOSE CAPABILITY						
Functioning Resource / Capability	**Gwavas**	**Kaweka**	**Esk**	**Tangoio**	**Mohaka**	**TOTAL**
Functioning hose units	19.0	61.0	13.0	20.0	44.0	157.0
Functioning suction hose units	3.0	10.0	3.0	7.0	10.0	33.0

Pack Type	Loaded Packs	Estimated Metres
Perc	24	2,160
Non-Perc	34	3,060
Unclassified	22	1,980
TOTAL	**80**	**7,200**

10.13. Initial Attack Ground Crews

- Initial attack ground crews, identified within the Pan Pac contractor base, are trained and equipped to support early wildfire response.

10.14. Communication

- At the fire ground, communications with FENZ are undertaken using the channels and communication systems established for the incident. Pan Pac personnel may communicate with FENZ using compatible handheld or vehicle-mounted radios where these have been programmed or assigned for the operation.

10.15. Mapping

Pan Pac maintains a fire management mapping system that includes:

- Roads, tracks, and forest boundaries
- Neighbouring properties and contact details
- Accessible water points
- Major water sources (e.g. large streams)
- Rubber-lined dams
- Earth dams
- Airstrips
- Identified hazards
- Historic sites and boundaries
- Emergency Coordinates
- Access to these maps is provided to FENZ to support fire planning, notification, and response activities.

10.16. Fire Breaks

- Pan Pac maintains several traditional fire breaks, many of which originate from historic Forest Service operations.
- These fire breaks provide access and egress for firefighting equipment and, where appropriately maintained and located, can assist in containing the spread of lower intensity fires.
- FENZ may inspect the Pan Pac estate from time to time, including in response to neighbours feedback, and may recommend or direct actions relating to fire break management. Pan Pac acts on these recommendations as required.
- Fire breaks are maintained using methods suited to the environment, including spraying, grazing, mowing, earthworks or periodic burning.
- Current fire break locations include:
  - Gwavas – Gwavas Road
  - Te Pohue – Old Coach Road (now maintained by Matariki Forests)
  - Kaweka – Napier–Taihape Road

11. Response (provide wildfire response)

11.1. Purpose

- Pan Pac aims to minimise the impacts of wildfire through a safe and effective response using trained personnel and appropriate equipment.
- During the fire season, priority is placed on early intervention, including response from on-site resources and additional support where required during periods of elevated fire risk.

11.2. Wild Fire Response Priorities

Pan Pac and FENZ priorities for wildfire emergencies are:

- Life (safety of firefighters and the public)
- Property (including buildings, infrastructure, plantation forest, neighbours, and significant vegetation).

11.3. Operational Safety

- Due to the dynamic nature of wildfire response, it is not always practical to complete detailed hazard assessments prior to suppression activities.
- At all times, crews apply established wildfire safety systems, including LACES, Standard Fire Orders, and Watch Outs.

Table 6: LACES, Fire Orders and Watchouts

LACES **Firefighters safety requirements**	**Fire Orders** **For Crew Leaders**	**Watchouts** Firefighting Hazards
L - Lookout(s) • Experienced, competent and trusted? • Enough lookouts, good vantage points ? • Knowledge of crew locations? • Knowledge of escape and safety locations? ***A – Awareness & Anchor Point(s)*** • Crews are briefed and understand the • incident and their objectives? • Fire behaviour and weather are known? • Crews are working from a safe and secure anchor point? ***C – Communication(s)*** • Radio channels are confirmed. • Communications are established with all crews, control point, HQ, etc? • Situation updates are communicated. • Communications required with the Comcen or FENZ ***E – Escape Route(s)*** • More than one escape route? • Scouted out, suited to slowest person (allow for fatigue), known to all the crew members? • Are marked (night time*)?* ***S – Safety Zone(s)*** • Natural or constructed area (in burnt area, roadway, etc)? • More than one required? • Vehicles available and correctly positioned for escape? • Are close enough given the planned escape route?	***Fire Behaviour*** • Conditions and forecasts. • Know what your fire is always doing. • Base all actions on current and expected fire behaviour of the fire. ***Safety*** • Identify escape routes and safety zones and make them known. • Post lookouts when there is possible danger. • Stay alert. Keep calm. Think clearly, act decisively. ***Communication*** • Maintain prompt communication with your crew/s, your supervisor and adjoining crews. • Give clear instructions and ensure they are understood. • Maintain control of your crew/s at all times. ***Approach*** • Fight fire aggressively having provided for safety first.	• Fire size is unknown (no size up). • Unfamiliar territory. • Safety zones and escape routes not identified. • Unfamiliar with weather and local factors influencing fire behaviour. • No communications link with crew members or supervisor. • Instructions and assignments not clear. • Weather is getting hotter, drier and relative humidity dropping • Wind increases and/or changes direction. • Getting frequent spot fires across the line. • Working uphill or downwind of a fire. • Working on a steep slope. • Working in rugged terrain. • Can't see main fire. • In unburnt vegetation. • Walking through hot ashes. • Working alone. • Getting tired. • Working near powerlines. • Working near machinery. • Working with aircraft. • Working around trees or spars.

11.4. Communication

- Communication with FENZ at the fire ground is undertaken using FENZ radio channels (e.g. IGC Zone A, UHF, Fire 1), programmed into Pan Pac handheld and vehicle-mounted radios and FENZ-supplied units on primary appliances.

11.5. Fire Response

- Wildfire response will vary depending on the size and location of the incident; however, an early and decisive initial response is always prioritised.
- Pan Pac applies a precautionary approach to ensure early containment, using Fire Danger Class criteria (Appendix E) to guide safe engagement.
- Personnel must immediately raise the alarm and, only where they are trained, equipped and able to do so without placing themselves or others at risk, undertake an initial response using the available firefighting equipment.

11.6. Fire Response Strategy

- Pan Pac's fire response strategy is based on an early initial response to wildfire.
- This is supported by firefighting capability integrated within operational crews, additional equipment available from local forest headquarters, and increased resourcing during periods of very high fire risk.
- Response capability is further supported through agreed deployment arrangements with FENZ for additional firefighting resources when required.

11.7. Reporting and Notification

- Wildfire incidents are reported through the national 111 emergency system. Emergency calls are managed through the Wellington Communications Centre, which dispatches the nearest available fire resources and notifies the relevant landowner.
- FENZ notification systems (e.g. AMS) provide alerts to Pan Pac personnel, supporting early awareness of fires within the region.
- Pre-determined procedures with FENZ support early notification to Pan Pac and enable an early and coordinated response.
- See Appendix D for a list of Fire Emergency Contacts.

11.7.1. Smoke Report

- If FENZ receives a smoke report near the Pan Pac estate, they will notify Pan Pac. Where Pan Pac responds to a smoke report independently, FENZ will also be notified to enable a coordinated response if required.
- When notified of smoke or fire within the estate, the authorised person (or delegate) will initiate a response to confirm the location and scale of the incident. This may range from verifying a controlled burn-off to activating initial attack resources and/or requesting FENZ support.
- Local forest staff, such as the Forest Coordinator or Forester, are typically used to confirm the location of the incident and assess the need for further response.
- Where appropriate, local helicopter and drone operators may be utilised to assist in locating and assessing the fire.

11.7.2. Small Fire Starting at Work site

- Most wildfires in New Zealand are caused by human activity. Forestry operations often involve equipment that can create ignition sources.
- Pan Pac requires that adequate firefighting equipment is available at work sites to enable immediate response to any ignition (refer Table 3: Contractor Minimum Fire Equipment).
- Where a fire starts at a forestry operation, crews are expected to respond immediately using available equipment to contain and extinguish the fire.
- Forest management must be notified as soon as practicable. If forest management cannot be contacted, or if additional support is required, FENZ must be notified. Where mobile coverage is unavailable, communication may be made via radio (OPS MILL PAN PAC DISPATCH CHANNEL).
- All fires, regardless of size or duration, must be reported to forest management. Even where the fire is quickly extinguished, further assessment and support may be required.
- All fire incidents must be investigated and recorded due to their potential risk and consequences.

11.7.3. Work site Fire Response

- Personnel present must use available equipment to immediately attempt to extinguish any fire (minimum equipment requirements are outlined in Table 3).
- Where a standby crew is nearby, assistance should be requested regardless of fire size.
- Even if the fire is successfully extinguished, forest management must be notified as soon as practicable to assess the need for mop-up, hotspot detection, and ongoing monitoring.
- If the fire cannot be controlled quickly, or if there is any uncertainty, FENZ and/or forest management must be notified immediately and additional resources requested. Resources can be stood down if not required; delays in requesting support may significantly increase risk.

11.8. Initial Attack and Aerial Support

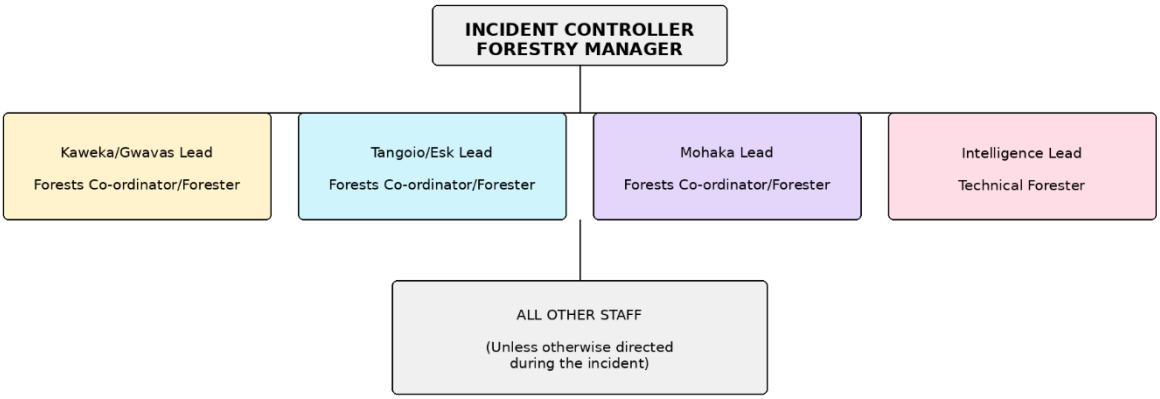
- Where fires originate outside Pan Pac operations, FENZ will notify Pan Pac and manage the response. This may include the deployment of Pan Pac resources within its estate to support external incidents.
- Pan Pac's response approach is based on containing fires at the earliest reasonable opportunity. Where required, aerial support (helicopters) may be requested through FENZ by an authorised person. Pan Pac may also independently request aerial support where necessary, noting this may be at Pan Pac's cost.
- Where fire size, terrain, or water availability require, additional ground-based water supply (e.g. tankers or semi-trailers) may be deployed to support initial attack crews.
- Firefighting operations follow established wildfire management practices, including the Rural Fire Management Handbook.

11.9. Command and Control

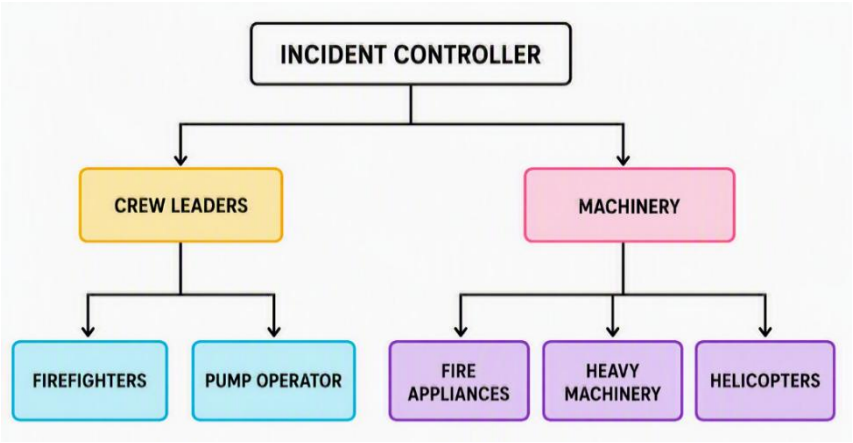
- Pan Pac operates under a Forestry Services Agreement with FENZ. When FENZ responds to an incident, they assume control of all firefighting operations through the Incident Controller (IC).
- Pan Pac personnel and equipment are made available to FENZ to operate under the direction of the IC, while remaining under the supervision of their Crew Leader.

- All responding personnel are to report to the Incident Control Point (ICP) or designated staging area for tasking.
- The IC will be the most competent person assigned to the role. In some situations, this may be a Pan Pac staff member. If it is a Pan Pac staff member it will follow the below format as the Forestry Division under Richard Airey manages all forest fires.

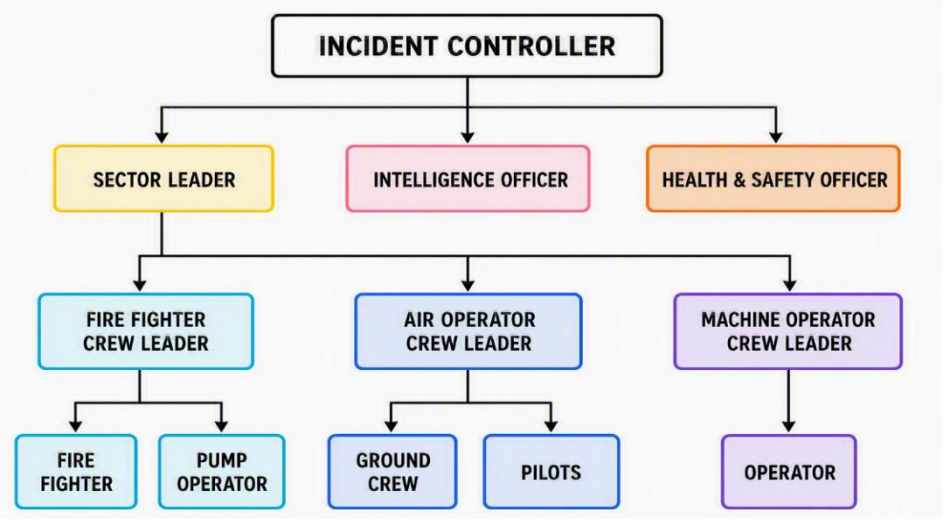
Pan Pac Incident Control Structure



Pan Pac Initial Firefighting Operational Structure (Initial Attack and Low Intensity Small Fires)



Long duration Firefighting Operational Structure



11.10. Crew Requirements

- FENZ expects all responding personnel to meet required standards, including appropriate training and personal protective equipment (PPE).
- Ground crews expected to attend the fire ground are equipped with:
  - Firefighting-appropriate boots (leather steel cap boots, or steel cap chainsaw gumboots)
  - Fire-resistant protective clothing (overalls, or other certified fire-resistant clothing)
  - Gloves suitable for firefighting (leather gloves)
  - Helmet with neck protection (protos helmets with attached neck flap are acceptable)
  - Hearing protection where required (e.g. pump operation)
  - Eye protection (goggles)
  - Dust mask

11.11. High Intensity / Campaign Fire

- During large or high-intensity fires, FENZ assumes full control of the response.
- Pan Pac will support the response by providing trained personnel and resources as requested. Pan Pac Forest Managers may fulfil a liaison role, providing the Incident Management Team with local knowledge of the forest estate.
- All Pan Pac personnel deployed to the incident will operate under the direction of the FENZ Incident Controller.
- Both Pan Pac and FENZ share responsibility for ensuring the safety and welfare of personnel on the fire ground.

11.12. Mop Up

- Pan Pac has workforce experienced in operating within forest terrain and access to heavy machinery, making it well suited to support the mop-up phase of wildfire incidents.
- Mop-up activities may include locating and extinguishing residual hotspots on foot, as well as suppressing deep-seated fires (e.g. skid sites) using a combination of heavy equipment and firefighting appliances.
- Burnt areas are inspected by experienced personnel to confirm all hotspots are extinguished, and the fire is fully controlled.

11.13. Evacuation

- Each PCBU operating within the forest must have an evacuation plan that includes fire response.
- Where a local or full forest evacuation is required, Pan Pac will communicate the evacuation via the respective forest radio channel to all affected parties.
- All personnel must exit the forest in a manner that:
- maintains the safety of themselves and others
- follows established forest driving practices
- All personnel are to assemble at the nearest designated emergency meeting point, or other safe spot where supervisors will account for personnel.
- Once assembled, personnel are to remain in place and await further instruction (e.g. redeployment or stand-down).

11.14. Communication

- Evacuation must be communicated to the employer in accordance with that organisation's emergency procedures. The employer must then notify the relevant Pan Pac Forest Management and/or H&S Advisor.
- Where it is safe to do so, personnel should:
  - visually check the work area
  - move machinery to a clearing free of vegetation
  - remove or secure any trailered equipment (e.g. portable fuel tanks)

12. Recovery (Post Wildfire)

This section outlines the actions taken following a wildfire to minimise adverse impacts on personnel involved, infrastructure, the forest estate, and the environment, and to support continuous improvement.

12.1. Fire Investigation

- All fires occurring within the Pan Pac estate shall be reported, investigated, and recorded regardless of size.
- Investigations shall seek to identify the fire origin, cause, contributing factors, and opportunities to reduce the likelihood of recurrence.
- Where appropriate, findings may be shared with contractors, neighbouring landowners, and relevant agencies to support continuous improvement in wildfire risk management.

12.2. Post Incident Review and Debrief

- Debriefs are carried out following all wildfire incidents. These may include:
  - shift-level (hot) debriefs
  - end-of-incident debriefs
  - formal operational reviews
- Debriefs focus on operational effectiveness, communication, and health and safety performance, with the aim of identifying improvements.
- Where applicable, Pan Pac participates in FENZ-led reviews of significant incidents and works with FENZ to implement any agreed improvements.
- Debriefs should occur as soon as practicable following the incident, ideally within seven days. Records of all debriefs are maintained.

12.3. Continuous Improvement

- Lessons identified from wildfire incidents, planned burns, exercises, near misses, and operational debriefs shall be considered during periodic reviews of this Fire Plan.
- Where appropriate, procedures, training, equipment, infrastructure, and risk controls will be updated to improve wildfire preparedness, response capability, and recovery outcomes.
- Pan Pac will work with FENZ, contractors, neighbouring landowners, and industry partners to identify opportunities for continual improvement in wildfire management practices.

12.4. Health and Welfare

- The health and wellbeing of firefighters and forest workers is considered during recovery.
- Where personnel have been exposed to traumatic events, support may be provided through Pan Pac's Employee Assistance Programme (EAP).

12.5. Stakeholder Communication

- Affected neighbours are kept informed of any ongoing risks to people, property, or the surrounding environment during and after the fire.

12.6. Equipment and Asset Recovery

- Firefighting equipment and PPE are:
  - cleaned and inspected
  - maintained or replaced as required
- All equipment used, lost, or damaged is repaired or replaced to ensure readiness for future use.

12.7. Damage Assessment

- Damage to forest infrastructure and assets is assessed and reported, including:
  - roads, bridges, and tracks
  - infrastructure and installations
  - forest stands and planting areas
- Repairs are undertaken where required, and implications for replanting or asset value are considered.

12.8. Environmental Management and Rehabilitation

- Areas affected by wildfire or suppression activities are assessed and managed to address damage where practicable.
- Rehabilitation is undertaken in accordance with relevant District Plan and Regional Council requirements.
- Where practicable:
  - damage from suppression activities is repaired
  - debris from firefighting operations (e.g. foam and fuel containers) is removed

12.9. Insurance and Cost Recovery

- Pan Pac works with insurers to assess and recover value from damaged forest assets where appropriate.
- Where services are provided to FENZ, invoicing is carried out in accordance with agreed arrangements.

13. Appendix A - Fire Danger codes

Code Green:	BUI < 60 FWI < 29
Hot Works Welding/gas cutting /grinding/heat guns	Must have appropriate fire suppression for the local conditions within 5 meters of the work area
Smoking	Only in appropriate areas.
Harvesting Operations	Debris/slash piles checked for 1:3 (1m dirt capping on 3m debris) formation.

Fire Preparedness Code Blue

Code Blue:	BUI 60-80 FWI <29
Hot Works Welding/gas cutting /grinding/heat guns	Permit to be applied for all hot works. Application to Technical Forester or Forestry Coordinator.
Smoking	*As per green.*
Inspections & Maintenance >all operations	Weekly-physical inspection of all fire equipment (including fire extinguishers) All inspections should be noted in the daily Crew preparedness checklist or tailgate record.
Machinery >all machine operations	Complete wash downs and keep high standard of cleanliness; Debris cleared from machinery, machine tracks, slew rings. Crew rubbish collected (including empty containers) and removed from the Forest (min weekly).
Chainsaw Use	Increase frequency of checks and keep high standard of maintenance. Check spark arrestors in place and working. Review chainsaw work in areas with high fire risk (gorse/manuka). Move chainsaw operations to areas with lower fire risk where possible.
Harvesting Operations	*As per code green, plus* Physical inspection of all hauler blocks, ropes and surrounding areas for clearance from slash, binding and fire hazards, for 1.5m. Minimum checks daily.
Fire Starts	Notify FENZ of any fire no matter size. **Dial 111**.
Emergency Planning	Inform the workforce about preparation for future elevation to Code Yellow at, for example, tailgate meetings. Notify Forestry Co-ordinator if working weekends. At any time, if the FWI increases beyond 29, consider implementation 'Step 5 - Code Red'
Forest Access	Review public access to forest.

Fire Preparedness Code Yellow

Code Yellow:	BUI 80-100 FWI < 29
Hot Works Welding/gas cutting /grinding/heat guns	*As per code blue*
Smoking	Only in areas clear of vegetation & fuel sources. No smoking in the cutover or standing trees.
Inspections & Maintenance >all operations	*As per code blue, plus* Daily - physical inspection of all fire equipment (including fire extinguishers) Crew vehicles and Service agency vehicles - all vehicles in forest to be checked by Contractor for required fire equipment.
Machinery >all machine operations	*As per code blue, plus* Check engine bay and hydraulic hoses for leaks, daily. Slew rings and track rollers to be checked for binding.
Chainsaw Use	*As per code blue*
Harvesting Operations	*As per code blue*
Mowing & slashing (roadside and ground)	Review forest mowing operations.
Fire Starts	Notify FENZ of any fire no matter size. **Dial 111**.
Emergency Planning	*As per code blue, plus* Inform the workforce about preparation for future elevation to Code Orange at, for example, tailgate meetings. Water points - Identify and inspect two nearest reliable water points. Escape plans to be in place, all personnel aware. At any time, if the FWI increases beyond 29, consider implementation 'Step 5 - Code Red'
Forest Access	*As per code blue, plus* Communicate with recreation permit holders, hunters, bikers etc that forest closures may occur.

Fire Preparedness Code Orange

Code Orange:	BUI 100-140 FWI < 29
Hot Works Welding/gas cutting /grinding/heat guns	*As per code Yellow*
Smoking	*As per code Yellow*
Inspections & Maintenance >all operations	*As per code Yellow*
Machinery >all machine operations	*As per code Yellow, plus* Refuelling sites must have a shovel and fire extinguisher nearby.
Chainsaw Use	*As per code Yellow, plus* **12:00hrs** all chainsaw operations halt on forest sites and / or all chainsaw operations to stop at BUI 120.
Harvesting Operations & Production Thinning	*As per code Yellow, plus* Back Blocks – provide 40L water and shovel at the back line. Inspect and clean each morning and after each shift. Record of inspections kept by Hauler operator. Check mobile tail holds are clear of vegetation, *area cleared to mineral earth around blocks*. Daily checks of all requirements recorded in Diaries or the daily crew preparedness checklist. Site risk rating completed. Preparedness, attac and evacuation plan to be established (see also emergency planning). **12:00hrs** all hauler, ground based and shovel logging extraction halt on forest sites. **15.00hrs** processing on skid sites halt All crews must have on hand 1 x 1000L IBC with 30m of hose, pumped or cease operation. NO machine operations in heavy undergrowth.
Engineering	No grading.
Mowing & slashing (roadside and ground)	Operations cease.
Fire Breaking & Slash raking	Low risk areas only. STOP 1200hrs.
Fire Starts	Notify FENZ of any fire no matter size. **Dial 111**.
Emergency Planning	*As per code Yellow, plus* Discuss initial response plans, inform the workforce about preparation for future elevation to Code Red at, for example, tailgate meetings. Crew to continually scan work site for visible signs of likely fire starts. Escape routes – Where possible establish and document <u>two</u> escape routes from the forest. All crew members must know the escape routes from their work sites. All silviculture crews at the ready, to have handheld communications with them at all times. Daily Assessment of weather by **1300hrs,** by forest, to determine need for elevation of readiness level – Technical Forester/Manager will communicate as necessary with crews/operations. Helicopter at the ready (monsoon with helicopter at all times) Daily forest patrols by smoke chaser through high hazard areas. Fire appliances & experienced operators to be within 30 min response and remain 1 hour after operations cease. **Foreman** to physically show fire appliance operator all access roads and tracks. One person is to remain 1 hour after operations cease as site firewatch. At any time, if the FWI increases beyond 29, consider implementation 'Step 5 - Code Red'
Forest Access	Consider reducing the number of crew vehicles (all operations) entering the forest. Cancel all recreational activities.

Fire Preparedness Code Red

Code Red:	BUI > 140 FWI ≥ 29
Hot Works Welding/gas cutting /grinding/heat guns	*As per code Orange, plus* Consider stopping all Hot Works for a defined period unless a smoke chaser plus crew & fire pod can be located nearby, OR Work before 1000 hours and after 1600 hours.
Smoking	*As per code Orange*
Inspections & Maintenance >all operations	*As per code Orange*
Machinery >all machine operations	*As per code Orange, plus* NO machine operations in heavy undergrowth.
Chainsaw Use	NO manual felling or chainsaw pruning operations.
Harvesting Operations Production Thinning	*As per code Orange, plus* ***12:00hrs** all hauler, ground based, shovel logging, extraction operations halt on forest sites.* **14:00hrs** processing on skid sites halt. All crews must have on hand 1 x 1000L IBC with 30m of hose, pumped.
Engineering	*As per code Orange, plus* No roading maintenance or quarry operations within 5 meters of vegetation.
Mowing & slashing (roadside and ground)	Operations cease.
Fire Breaking & Slash raking	Operations cease.
Fire Starts	Notify FENZ of any fire no matter size. **Dial 111**.
Emergency Planning	*As per code Orange, plus* Fire Appliance (or 1000L IBC) on site and crewed with minimum of two experienced operators from early morning until 1 hour after harvesting crew ceases operation. All operations are to STOP if: A vegetation fire starts within the district, when the BUI is >120. Required by FENZ
Weather	In strong wind conditions consideration should be given to closing operations.
Forest Access	*As per code Orange, plus.* Cancel all recreational activities.

14. Appendix B - Fire Danger Class Criteria

Table of Suppression Interpretations

Fire Danger Class	Description of Probable Fire Potential and Implications for Fire Suppression[1]	Nominal Max. Flame Height
EXTREME	The situation should be considered "explosive". The characteristics associated with the violent physical behaviour of conflagrations or firestorms is a certainty (e.g., rapid spread rates, crowning in forests, medium- to long-range mass spotting, firewhirls, towering convection columns, great walls of flame). As a result, fires pose an especially grave threat to persons and their property. Breaching of roads and fire breaks occurs with regularity as fires sweep across the landscape. Direct attack is rarely possible given the fire's probable ferocity except immediately after ignition and should only be attempted with the utmost caution. The only effective and safe control action that can be taken until the fire run expires is at the back and along the flanks.	3.6+ metres
VERY HIGH	Burning conditions have become critical as the likelihood of intense surface fires is a distinct possibility; torching and intermittent crowning in forests can take place. Direct attack on the head of a fire by ground forces is feasible for only the first few minutes after ignition has occurred. Otherwise, any attempt to attack the fire's head should be limited to helicopters with buckets or fixed-wing aircraft, preferably dropping long-term chemical fire retardants. Until the fire weather severity abates, resulting in a subsidence of the fire run, the uncertainty of successful control exists.	2.6 to 3.5 metres
HIGH	Running or vigorous surface fires are most likely to occur. Any fire outbreak constitutes a serious problem. Control becomes gradually more difficult if it's not completed during the early stages of fire growth following ignition. Water under pressure (from ground tankers or fire pumps with hose lays) and bulldozers are required for effective action at the fire's head.	1.4 to 2.5 metres
MODERATE	From the standpoint of moisture content, fuels are considered to be sufficiently receptive to sustain ignition and combustion from both flaming and most non-flaming (e.g., glowing) firebrands. Creeping or gentle surface fire activity is commonplace. Control of such fires is comparatively easy but can become troublesome as fire damages can still result and fires can become costly to suppress if they aren't attended to immediately. Direct manual attack around the entire fire perimeter by firefighters with only hand tools and back-pack pumps is possible.	Up to 1.3 metres
LOW	New fire starts are unlikely to sustain themselves due to moist surface fuel conditions. However, ignitions may take place near large and prolonged or intense heat sources (e.g., camp fires, windrowed slash piles) but the resulting fires generally do not spread much beyond their point of origin and, if they do, control is easily achieved. Mop-up or complete extinguishment of fires that are already burning may still be required provided there is sufficient dry fuel to support smouldering combustion.	No visible flame

1 *THE ABOVE SHOULD NOT BE USED AS A GUIDE TO FIREFIGHTER SAFETY, AS FIRES CAN BE POTENTIALLY DANGEROUS OR LIFE-THREATENING AT ANY LEVEL OF FIRE DANGER!*

15. Appendix C – Harvesting Checklist

FIRE RISK	**All fires call 111** **Then Contact:** Richard Airey (027) 426 4821 Dave Coe (Kaweka/Gwavas) (027) 446 4908 Russell Schaare (Mohaka) (020) 4194 1373 Conor Moorhead (Tangoio/Esk) (027) 207 1499	Tick the boxes, confirming compliance, as the fire severity increases. High fire danger, both Yellow & Blue codes are to be ticked. Very High fire danger Orange, Yellow & Blue boxes are to be ticked. Extreme all boxes Red, Orange, Yellow & Blue are to be ticked.					
		Mon	Tues	Wed	Thurs	Fri	Sat
	Date: ⟶						
	Fire hazard set by Company for the day: ⟶						
CODE BLUE	Hot Works Permit applies.						
	Notify Technical Forester, forester or Forestry Co-ordinator of working weekends/ & any road closures.						
	Chainsaws - review work in areas with high fire risk (gorse). Preference for low-risk areas.						
	Chainsaws - Increase frequency of checks & keep high standard of maintenance. Check spark arrestors in place & working.						
	Machinery - Increase wash downs & keep high standard of cleanliness.						
	Weekly physical inspection of all fire equipment.						
	Physical inspection of all hauler blocks, ropes & surrounding areas for clearance from slash, binding & fire hazards 1.5m. Daily.						
CODE YELLOW	Smoking only in areas clear of vegetation & fuel sources. No smoking in cutover or standing trees.						
	Crew vehicles & service agency vehicles in forest to be checked by contractor for req. fire equipment.						
	Machinery - wash down machinery. Weekly.						
	Machinery – check engine bay & hydraulic hoses for leaks. Slew rings & track rollers to be checked for binding. Daily.						
	Daily checks of all fire requirements (machines, blocks, shovels, extinguishers, Regas etc.) recorded in diaries. Site risk rating. Preparedness, attack & evacuation plan to be established.						
	Water points - Identify & inspect two nearest reliable water points.						
CODE ORANGE	Escape routes - Where possible establish two escape routes from the forest. All crew members must know the escape routes.						
	Mobile tail holds are clear of vegetation (area cleared to mineral earth around blocks).						
	Back blocks - Provide 40 litres of water & a shovel at each of the back blocks. Inspect & clean each morning & after each shift.						
	Emergency communications - All vehicles to have a reliable form of emergency communication.						
	Refuelling sites to have a shovel and fire extinguisher nearby.						
	1000L pumped IBC of water with 30m hose to be present.						
	1200hrs all chainsaw operations, hauler, ground based & shovel logging operations halt on forest sites.						
	1500hrs processing on skid sites halt or as stated by company.						
	Fire watch - 1 person for each operational site to remain, 1 hour after operations cease & complete site inspection before leaving.						
	No machine operations in heavy undergrowth.						
	Harvesting operations stop at 1200hrs, or as stated by company.						
CODE RED	1400hrs Processing halts, or as stated by company.						
	No chainsaw operations.						
	No roading maintenance or quarry operations.						
	Fire appliances on site & crewed.						
	SIGNED						

16. Appendix D – Hot Work Permit

Contractor Details		
Company Name/Entity		
Address		
Person Responsible		
Person Assigned as Fire Watch		
Phone Number		
Email		
Permit valid from		
Work to occur between		
Fire Watch	Start:	End:
Location / Forest		Lat/Long
Stand / Skid		
Hot Work Details		
Details of work to be performed		
Description of work (circle one)	Welding	Notes
	Cutting	
	Grinding	
	Soldering	
	Smoking Bees	
Principal Details (Issuer)		
Person Responsible (Issuer)		
Phone Number		
Email		

Requirements Checklist	
☐ ☐	Have a "slip on unit" with tank water supply of 200-400 litres and high-pressure pump onsite at the place of work with a "charged hose line" at the ready to deal with any fire outbreak. This needs to be within 4 metres or so of the hot work. Also, a full fire extinguisher, dry powder or 9 litre foam needs to be onsite very close to the hot work as a backup to the slip-on unit.
☐	Wet down site before hot work starts
☐	Extinguish any weld spatter, angle grinder sparks etc. which may have caused fine fuels to ignite or smoulder
☐	Mandatory Fire Watcher on-site to observe during work and be capable of operating slip on unit and post work for 1 hour
☐	All work to be carried out on bare earth (skid) or road with 5m circumference free from combustible material. If unable to do so a work plan must describe mitigation measures
☐	Check site on completion of welding
☐	Work plan and Risk/Hazard Assessment carried out before commencing work

NB 1 – This permit may be cancelled at the discretion of Pan Pac at any time.
NB 2 – This permit must be completed and emailed with photos confirming the site preparation & controls in place, send to; hotworks@panpac.co.nz. Wait for confirmation before commencing work.
Your signature below confirms you have met all requirements to reduce the likelihood of a fire occurring.

Signed – On Behalf of Contractor
Name: ..... **Date:** ..... **Time:** .....

Signed – On Behalf of Pan Pac
Name: ..... **Date:** ..... **Time:** .....

HOT WORKS

Hot work is defined as using electric welders, grinders, gas torches and equipment creating hot or molten metal, sparks which could result in a wildfire.

1. Obtain a current hot work authorisation from Forest Management at hotworks@panpac.co.nz.
2. Only carry out Hot Work on an area cleared of all vegetation and organic material, the site must be down to mineral soil.
3. Have a minimum of 200 litres of water and high-pressure pump onsite at the place of work with a "charged hose line" at the ready to deal with any fire outbreak. This needs to be within 4 metres so of the hot work. Also, a full fire extinguisher, dry powder or 9 litre foam needs to be onsite very close to the hot work as a backup to the slip-on unit. Fire extinguishers need to comply with the Hawke's Bay Forestry Operations Fire Danger Code requirements.
4. Ensure that the pump engine is full of fuel and that the tank / pump system is working before the hot work commences.
5. Wet the site down before the hot work starts. Have one person doing the hot work and another fit and mechanically capable person operating the water pump.
6. Extinguish any weld spatter, angle grinder sparks etc. which may have caused fine fuels to ignite or smoulder.
7. Stay onsite after the hot work has concluded for 1 hour to deal with any re-ignitions, flare-ups or smouldering fire.
8. Fire and Emergency NZ may impose further restrictions or prohibit hot works activities. In elevated fire conditions, check with Forest Management that no additional restrictions or prohibitions are in force.