

Vault ID #	Task/Area where hazards exists	Hazard – what can cause harm	Potential outcome – what can happen	Likelihood	Consequences	Risk Rating (Inherent)	Required Control Measures List the control measures required to eliminate or minimise the risk of illness or injury for each hazard identified	Frequency of Monitoring or Action Date	Personnel Responsible The person required to action the control measure	Eliminate	Type Minimisation Controls	Likelihood	Consequences	Risk Rating (Residual)
Assumptions: Provisions of the Approved Code of Practise will apply to all operations as the minimum required standard and will not be re-visited in the control plans below (inclusive of PPE, emergency items, standard operating procedures, maintenance of plant & equipment to manufacturers specifications, training and supervision practices).									High Risk After Controls: Operational Manager approval required. High risk with new controls GM approval required.					
4212	Driving <u>inside</u> Forest LVs, or other All (ref code 6451 for HV)	Drivers Terrain Trees Animals Fatigue Mechanical Failure	Head on Rollover Stuck/stranded Fatality Serious-Minor Injury Asset damage	B	5	E	- PP forest road condition (build/maintain) Eng standards - PP forest GIS mapping available (app) - PP contractor pre-qualification, induction & monitoring - PP driving standards & critical rules 50km speed limit - Seat belt worn at all times - Able to stop in ½ the visible distance - RT & road position call outs - Lights on - PP vehicle purchasing & maintenance standards - Forests competency checks - Hands free mobile device & policy - Fatigue management guidelines & policy, max work hours or min break - Traffic Management practises as per the BPG for private Forestry Roads - Monitoring devices in vehicles, actively managed - Monitoring devices in vehicles	All times All times All times All times All times As required All times All times As required All times All times	Pan Pac Pan Pac Pan Pac Pan Pac / entrants Pan Pac / staff Pan Pac / staff Pan Pac / staff Pan Pac/contractor Pan Pac/contractor Pan Pac Contractor	 Eng A A A Eng A A A A A A	D	5	M	
5212	Driving <u>outside</u> Forest LVs or other All (ref code 6452 for HV)	3 rd Party Drivers Road conditions Traffic Management Fatigue Mechanical Failure	Head on Rollover Stuck/stranded Fatality Serious-Minor Injury Asset damage	B	5	E	- PP vehicle purchasing & maintenance standards (4wd LVs) - Forests competency check - Hands free mobile device & policy - Drive within the law, adhering to road code - Fatigue management guidelines & policy, max work hours or min break (see fatigue) - Traffic Management practises as per the NZ Roding Authority - Monitoring devices in vehicles, actively managed - Monitoring devices in vehicles	All times All times All times All times All times All times All times All times	Pan Pac / staff Pan Pac / staff Pan Pac / staff Pan Pac/contractor Pan Pac/contractor Pan Pac/contractor Pan Pac/contractor Pan Pac Contractor	 Eng A Eng A A A A A A	D	5	M	
5215	Environs (hazards) in forests All tasks Plotting PP Planning Monitoring (HS, Env)	Environs (hazards) in forests Steep terrain, Bluffs, cliffs Ground depressions, tomos Undergrowth - gorse, nettle, blackberry Insects Animals	Health impact Infection Anaphylaxis Strain, Sprain Fracture	B	3	H	- PP forest GIS mapping available (app), slope mapping provided - Forestry staff training - Forestry hydration/nutrition training - Assess the path of travel - PPE (sturdy footwear, chaps, gorse capes, gators or other) - Notify Manager, supervisor, foreman of allergies, plan for emergencies - Carry epi pen	All times All times 1 st 3 months All times All times All times As required	Pan Pac Pan Pac All entrants All entrants Pan Pac/contractor Entrants Entrants	X	A A A A A A A	C	2	M
5216	Unauthorised access Security All	Unauthorised access Unsavoury or aggressive persons Fire arms Fires	Interference Violence – acute or long lasting injury Theft Asset damage	D	4	M	- Gates with e-locks (transition) - Gates with keys, key issuing practises (transition) - Induction & authorisation to enter practises - Security patrols (2 up), security trained with body armour & cameras - Landowner agreements, risk mgmt., access practises (exclusion during operating hours) - Hunting permit system (PP forests) - Iwi hunting permit system (lease forests)	All times All times All times All times As required As required All times	Pan Pac Pan Pac Pan Pac Pan Pac/contractor Pan Pac / owner Pan Pac Iwi	X	I, A I, A A A A A A	D	5	M
5218	Weather Security All	Adverse Weather Wind Isolation Road conditions Trees	Fatality, hit by object Serious-Minor Injury, heat stroke, hypothermia, hyperthermia Asset damage	C	3	H	- Weather monitoring & awareness, use of Apps and advisories - Adverse Weather Procedure (FOR-PRO-HS13) - Forest full or part closure - Work & vehicle location – move to protected area - All workers empowered to stop work, reassess	All times As required As required As required	Pan Pac / entrants Pan Pac / entrants Contractors Entrants	X	A A A I I	D	3	M
5220	Operating Quad bikes / ATV	ATV & trailer - tip, rollover, loss of control Mechanical failure Steep or unstable terrain Animals	Head on Rollover Stuck/stranded Fire Fatality Serious-Minor Injury Asset damage	C	5	H	- PP forest road condition (build/maintain) Eng standards - PP forest GIS mapping available (app) - Pan Pac competency check - Trailer design with twin axle, braked and maintained - ATV with rollover protection, fail to safe seat belts fitted, helmets supplied - Daily pre-start check - Operate to the conditions & terrain, remain on forestry roads or track as able - Maintain safe working limits, load capacity - Regular cleaning and removal of fine debris - Fire extinguisher fitted, annual checks - PP driving standards & critical rules - Seat belt worn at all times - Able to stop in ½ the visible distance - RT & road position call outs on active roads - Lights on	All times All times All times All times All times All times All times All times All times All times All times All times	Pan Pac Pan Pac Pan Pac Pan Pac/contractor Pan Pac/contractor Operator Operator Operator Operator Operator Operator Operator	X	Eng A A Eng Eng A A A A A A Eng	D	5	M

5221	All	Alcohol & other substances -workers under the influence	Fatality Serious-Minor Injury Asset damage	C	5	H	- Pan Pac policy, procedure (FOR-PRO-HS23) - PP staff education - Pre-employment, Random testing and detection program - Post incident testing	All times As required All times As required	Pan Pac Pan Pac staff Entrants Entrants	X	A A A A	D	5	M
5222	All	Stress & Fatigue	Injury Illness Environmental damage Asset damage	B	3	H	- Fatigue management procedure, (FOR-GUI-HS01) max work hours 13 per day, 70 per week - Employee assistance program - Plan & prioritise workload - Maintain sleep, fitness, recreation as per Forestry training - Maintain Hydration, nutrition as per Forestry training - Report, adjust start times as required	All times As required As required All times All times As required	Pan Pac/contractor Pan Pac/staff Pan Pac /staff Entrant Entrant Entrant	X	A A A A A A	D	1	L
5223		Animals/insects merged into environs of forest												
5224	All	External Environment UV light Dust Pollens Weather	Heat stress or stroke, Hypothermia/hyperthermia, Dehydration, Respiratory infections, Melanoma/sun burn, Eye injuries	A	3	H	- First aid kit available - Trained first aiders - Maintain hydration & nutrition as per Forestry training - Wear appropriate clothing & protective gear, carry spares as required - Minor allergies to be treated as needed - Annual skin checks as per PP segregation groups	All times All times All times All times All times Annual	Pan Pac/contractor Pan Pac/contractor Entrant Entrant Entrant Pan Pac & staff	X	A A A A A A	D	1	L
5226	Operating Hand Tools	Hand Tools & batteries (ie slashers, spades, winches, shovels, machetes, water blasters, grinders, grease guns, drills...)	Lacerations Bruises Strains & sprains Fire	C	2	M	- Tool selection for safety, maintained and used as manufactured - Daily checks - Sharp blades protected when carrying, transporting (cut resistant pouches as available) - Maintain minimum approach distances (MADs) of 2-5m during use - LIPO bags, lithium fire blankets	All times All times All times All times All times	Pan Pac/contractor Operator Operator Operator Pan Pac/contractor	X	A A A, I I A	D	2	L
5227	All	Working Alone or Remote	Fatality Serious-Minor Injury Ill health Unsavoury interactions	D	4	M	- No working alone, or - Working alone procedure with check in times 2 forms of reliable communication - Carry e-perb, in reach - GPS installed in vehicles and monitored	All times As required All times All times All times	Contractor Pan Pac / contractor Pan Pac / contractor Entrant Pan Pac / contractor	E	A A Eng Eng, A	D	4	M
5228	Fences – use and installation	Electricity Barb wire Heavy lifting Augers	Electrocution Loss of limb Infection Strain or sprain Eye Injury	C	1	L	- Use gates or stiles, maintain 3 pts of contact - TMP in place when installing or maintaining within 1 tree length of active forestry road - Use all machinery/tools as intended, no working alone with augers - Fit for work, 2 person or mechanised lifting - Situational awareness and judgement - Minimum Approach Distances and PPE (safety glasses) when wire straining	All times As required All times All times All times As required	Entrant Contractor Contractor/operator Contractor/operator Entrant Entrant	E	A A A A A	C	1	L
5232	Skid Rehabilitation	Unstable terrain Ridges Loose stumps & debris Slash	Destabilised machinery Rollover Serious – minor injuries Fracture Asset Damage	C	5	H	- PP contractor pre-qualification, induction & monitoring - PP forest GIS mapping available (app) - Pre-operational - prescriptions, mapping, hazard identification and risk assessment. - Onsite hazard identification and risk assessment - Machinery protective structures certified (Ops, ROPs, COPs) - Doors/guards closed in operations - Seat belt and/or 4pt harness maintained and in use - Emergency exits clear and able to be used - Warning signage in place for active forestry roads (speed restriction as req) - Use rake arm as required. - Mobile diesel units with auto dispensing & signage	All times All times All times All times All times All times All times All times All times All times All times	Pan Pac Pan Pac Pan Pac Contractor Contractor Contractor/operator Operator Operator Contractor/operator Contractor Contractor		A A A A Eng Eng Eng, A Eng, A A Eng, A Eng	D	5	M
5233	Slash Raking (cutover rehab)	Steep slopes Unstable terrain Ridges Loose stumps & debris Slash Hazardous Substances Waterways Wetlands	Serious – minor injuries Fracture Asset Damage	C	5	H	- PP contractor pre-qualification, induction & monitoring - GIS Mapping and slope class maps provided - Pre-operational hazard id, risk assessment, control plan - Machinery protective structures certified (Ops, ROPs, COPs) - Doors/guards closed in operations - Seat belt and/or 4pt harness maintained and in use - Emergency exits clear and able to be used - Hydraulic controls, fail to safe - Warning signage in place for active forestry roads (speed restriction as req) - Contour slash raking at bottom of the hill - Mobile diesel units with auto dispensing & signage	All times All times All times All times All times All times All times All times All times All times All times	Pan Pac Pan Pac Contractor Contractor Operator Contractor/operator Contractor/operator Contractor/operator Contractor/operator Contractor Operator Operator		A A A E E E, A E, A E, A E, A A A Eng, A	D	5	M
5234	Road Maintenance (restore)	Traffic active forestry road, Unauthorised entrants Unstable terrain above or below Unstable material/trees above or below Hazardous Substances Fire	Engulfment Crash Rollover Serious – minor injuries Fracture Fire (from sparks) Asset Damage	C	5	H	- PP contractor pre-qualification, induction & monitoring - Pre-operational hazard id, risk assessment, control plan - Machinery protective structures certified (Ops, ROPs, COPs) - Seat belt and/or 4pt harness maintained and in use - TMP in place (operations warning, 30km restriction) - Mobile diesel units with auto dispensing & signage - Fire Codes to be applied to all operations (no grading from code orange) - Multiple Operations (proximity) - communicate and plan operations and priority with all contractors. Refer code 5238	All times All times All times All times All times All times Fire Season As required	Pan Pac Pan Pac Contractor Contractor/operator Contractor Contractor Pan Pac/contractor/operator All		A A Eng Eng, A I, A A Eng, A A A	D	5	M

5235	Metalling	Traffic Unauthorised entrants Loose material above or below (tree/soil/bank) Access or egress Unstable load (SRT), Power lines & overhead hazards	Fatality, serious injuries, plant damage, rollover strains, and sprains	C	5	H	- Pre-operational - prescriptions, mapping, hazard identification and risk assessment. - Onsite hazard identification and risk assessment - Awareness when hoists/booms are up on steep gradients and near overhead hazards. - Take 5 – Awareness of surroundings and work area. - TMP/warning signs in place, as required.	All times All times All times All times A required	Pan Pac Contractor Operators Operators Contractors	X	A A A A A	D	5	M
5236	Earthworks	Traffic Unauthorised entrants Loose material above or below (tree/soil/bank) Access or egress Unstable load, Power lines & overhead hazards unstable ground, drop offs, bluffs, tomos, dislodged material poor visibility i.e., from undergrowth/slash, loose stumps & standing trees	Fatality, serious injuries, plant damage	B	5	E	- Pre-operational - prescriptions, mapping, hazard identification and risk assessment (include consideration of gullies, water courses & remove vegetation where required) - Onsite hazard identification and risk assessment - Steep gradient – form pilot track where required - Root balls and rocks stored in a stable location - Seat belt and/or 4 pt harness maintained and in use - Doors and/or guards closed in operation - Take 5 - awareness of surroundings and work area - TMP/warning signs in place, as required	On issue of prescription Daily All times All times All times All times All times All times	Pan Pac/ Contractor	X	A A Eng I Eng Eng A A	E	5	M
5237	Culvert installation	Traffic Unauthorised entrants Loose material above or below (tree/soil/bank) Access or egress Unstable load, Power lines & overhead hazards, Unstable ground trench collapse, lifting equipment failure, manual lifting of concrete culvert,	Fatality, crush, serious injuries, plant damage, strains, and sprains	C	5	H	- Pre-operational - prescriptions, mapping, hazard identification and risk assessment. (include consideration of gullies, water courses & remove vegetation where required). - Onsite hazard identification and risk assessment - Management Plan as required - Ground & pad preparation provides solid base of operation - Best practice guidelines for excavations - Pan Pac and manufacturer design specifications available and in use - Stream diversion as required. - Current, certified, inspected lifting equipment. - Operate the machine within its safe working load - Correct manual handling lifting techniques . - TMP/warning signage in use, as required	On issue of prescription All times All times All times All times As required As required All times All times All times All times	Pan Pac/Contractor	X	A A A Eng A A Eng Eng A A A A	E	5	M
5238	Overlapping Duties Other operations (working with or in close proximity)	Traffic Machine on person Machine on machine, Dislodged material Hazardous Substances Unauthorised entry	Fatality Serious-Minor Injury (acute or chronic) Unsavory interactions	C	5	H	- PP contractor pre-qualification, induction & monitoring - PP scheduling and notification - Pre-operational hazard id, risk assessment, control plan - Job planning between crew foremen, operators, PP staff, with agreed control and communication plan, noted in daily tailgate - TMP in place as required - Rule: 2 tree length minimum approach distance for all tree felling	All times	Pan Pac Pan Pac Contractor Pan Pac/contractors Contractors All		A A A A A A	D	5	M
5239	Forestry Fire Response All	Fire Smoke Heat Stability of terrain Heat impact/fracturing of rocks Trees	Fatality Serious-Minor Injury Crush Smoke Inhalation Burns Hypothermia Asset damage	B	5	E	- FENZ & PP fire plan & fire codes - Authorised persons - Fire Dams in place & maintained - Powerline corridors in place & maintained (MADs - transmission 30m, 4m approach) - PP Fire maps - PP Emergency response instructions - Rapid response equipment & personnel - Fire equipment standards & annual checks, Forestry equipment monthly checks - Machinery turbo or spark arrestors. Deluge fire systems when fitted. - High risk work permitting & restrictions - Training US3285 - Ground crew trained, experienced & equipped - Annual fire response drills	Annual All times All times All times All times As required All times All times Annual	Pan Pac Pan Pac Pan Pac Pan Pac Pan Pac Pan Pac Pan Pac/contractor Pan Pac/contractor Pan Pac/contractor Pan Pac/contractor Pan Pac/contractor PanPac/contractor PanPac/contractor		A A Eng Eng A A Eng, A Eng Eng A A A A	D	3	M
5240	Towing trailers	3P drivers Trailer operation and security Liquid/live load Insecure loads Hazardous Substances Terrain/road conditions	Loss of control (vehicle/trailer) Roll over Spill Asset damage	C	5	H	- Trailer engineered with trailer brakes and security chain fitted - Daily pre-start check - Loads secured - Hazardous substance controls in place (SDS, fire extinguisher, signage as required) - Drive to the conditions (see 4212/5212), identify suitable turn arounds	All times	Pan Pac/contractors Pan Pac/contractors Operators Pan Pac/contractors/operators Operators		Eng A Eng A A	C	2	L
5241	Quarrying – Machine rollover	Machinery roll over Uneven or unstable terrain Benches Stock piles	Fatality Serious injuries	C	5	H	- PP contractor pre-qualification, induction & monitoring - Quarry Manager - B Grade, registered with Worksafe - Quarry formation and management as per Regulations for Mining Operations - Pre-operational hazard id, risk assessment, control plan & tailgate - Keep working floors flat and graded - Machines with applicable protective structures for the task being completed e.g., ops, fops, rops, cops, polycarbonate glass. - Berms on all benches or stockpile, where there is access. - Seat belts always worn when machine is operational - Doors to be kept shut when operating machine. - Bench width 6-8m when operating on a bench - Check for cracks in the working face (regular) - Follow Quarry Manager’s plan for the site	All times All times All times All times All times All times All times All times All times All times All times All times All times	Pan Pac Contractor Contractor Contractor Operator Contractor Contractor/Operator Operator Operator Operator Operator Operator Operator	X	A A A A Eng Eng Eng Eng A Eng Eng A A A	D	4	M

5242	Quarrying – working from height on mechanised screens and crushing plants	Falling from height Machinery	Fatality Serious injuries	C	5	H	- Pre-operational hazard id, risk assessment, control plan & tailgate - Pre-start checks - Guard rails on excavator mandatory - Cat walks with non-slip surfaces - Three points of contact must be maintained - Safe zones for workers/visitors	All times Daily All times All times As required All times	Contractor Operator Contractor Contractor Operator All persons	X	A A Eng Eng A A	E	5	M
5243	Quarrying – Falling objects	Face collapse, debris Benches Stock piles Vehicle or plant driving off bench Fall from height	Fatality Serious injuries	B	5	E	- PP contractor pre-qualification, induction & monitoring - Quarry Manager - B Grade, registered with Worksafe - Quarry formation and management as per Regulations for Mining Operations - Pre-operational hazard id, risk assessment, control plan & tailgate - Onsite hazard identification and risk assessment - Install 7-metre-wide bench from face and install berm - Operate perpendicular to face when stripping - Machines with applicable protective structures for the task being completed e.g., ops, fops, rops, cops, polycarbonate glass. - Monitoring control measures – quarry audit - Communication between all operators and drivers - Monitor dust, noise, man vs machine interaction	All times All times All times All times All times All times All times All times All times All times X2 weekly All times All times	Pan Pac/ Contractor Contractor Contractor Pan Pac/ Contractor PP/Contractor Contractor Contractor Contractor Contractor Contractor Pan Pac All persons Contractor	X	A A A A A Eng Eng Eng A A A	D	5	M
5244	Quarrying – vehicles & loading	Vehicles and Plant Product Stockpiles Benches (stability)	Collapse Engulfment Serious – minor injuries Fracture Asset Damage	C	4	H	- PP contractor pre-qualification, induction & monitoring - Quarry Manager - B Grade, registered with Worksafe - Quarry formation and management as per Regulations for Mining Operations - Pre-operational hazard id, risk assessment, control plan & tailgate - Install 7-metre-wide bench from face and install berm - Operate perpendicular to face when stripping - Machines with applicable protective structures for the task being completed e.g., ops, fops, rops, cops, polycarbonate glass. - Monitoring control measures – quarry audit - Purchase order and approval to be issued before pick up (Forestry) - Dump gate security and operation checked before entry - RT comms when entering working floor - Co-ordinate activities - Obey all hazard signage and instruction - Remain in cab or designated safe zone during loading - Load acceptance - Monitor dust, noise, man vs machine interaction	All times All times All times All times All times All times All times All times X2 weekly All times All times All times All times All times All times All times All times	Pan Pac Contractor Contractor Contractor Operator Operator Contractor Contractor Pan Pac Operator Operator Operator Operator Operator Operator Operator Operator	X	A A A A Eng, A Eng, A Eng A A A A A I, A A A	C	3	M
(new)	Quarry processing (screening, crushing)	Machinery Access/egress Drawing in Crushing Dust Noise	Death Serious injury Amputation Crushing Long term health impact	B	5	E	- PP contractor pre-qualification, induction & monitoring - Quarry Manager - B Grade, registered with Worksafe - Quarry formation and management as per Regulations for Mining Operations - Preoperational hazard identification and risk assessment. - Prestart inspection - Machines with applicable protective structures for the task being completed e.g., ops, fops, rops, cops, polycarbonate glass. - E-stops and lockouts in working order	All times	Pan Pac Contractor Contractor / Operator Contractor Operator Contractor Operator	X	A A A, Eng A A Eng I	D	5	M
(new)	Quarry Management	Traffic Machinery Face collapse Bench collapse Dust Noise Other contractors	Death Serious injury Hearing loss Long term health impact	B	5	E	- PP contractor pre-qualification, induction & monitoring - Quarry Manager - B Grade, registered with Worksafe - Quarry formation and management as per Regulations for Mining Operations - Geotechnical assessment and reviews as required - Principal Management Plan - Operational Management Plan - Council and Iwi consent in place (as applicable) 3rd party operations by agreement and procedure - TMP and signage in place - Lone worker procedures in place - Potential health impact for Silica & rock dust (needs to be quantified)	All times All times All times As required All times All times All times As required All times As required All times As required All times	Pan Pac Contractor Contractor Pan Pac/Contractor Pan Pac Contractor Pan Pac Pan Pac / Contractors Pan Pac / Contractor Contractor Operator	X	A A A Eng A A A A A A A A	E	5	M
	Roadside debris removal with Machines – low risk	Trees not perched or loaded	Serious-Minor Injury Crush	B	2	M	- Take 5 haz id, risk assessment & tailgate - Machines with applicable protective structures for the task being completed e.g., ops, fops, rops, cops, polycarbonate glass. - TMP - Work on safe side, uphill	All times	Pan Pac/contractor Contractor/operator Contractor/operator Contractor/operator	X	A A A A A	D	2	L
6315	Machinery maintenance	Rotating parts Heat Fluids/air under pressure Hazardous Substances Work area/surface Other operations Working alone Work at heights Heavy parts Crushing, entanglement	Fatalities Permanent injury – i.e. amputation, loss of sight Loss of consciousness Crush, entanglement Hypothermia	5	C	E	- No working alone where high-risk activity (entanglement/WAH etc) exists consider a 2-person working plan - Monitoring by SBO as required - SOP or Take 5 risk assessment - Machinery de-energised -lock out tag out, isolations in place - Segregation of work area & mobile workshop - Manual & SOPs available - Machine in maintenance mode where available - Trained, competent maintainers with current fall restraint training/equipment in fall prevention if WAH required - SDS available, Haz Sub PPE and spill kit as required	All times As required All times As required All times All times All times As required All times	All persons Contractor Contractor All persons Contractor Contractor Contractor Contractor	Elim X	E A A I I A Eng A A	5	D	M

6438	All	Interpersonal Interactions - Bullying - Harassment	Acute or long term impact mental health Medical treatment Time off Resignation Hospitalisation	C	3	H	- Training and awareness programmes - Well-being Programme & Co-ordinator - Workplace Culture and Policies, ‘the way we work’ - Workplace HS&E committees with HSRs - Workplace support programmes & peer support - RT protocols	Bi-annual, refresher All times All times Monthly/Quarterly All times All times	Pan Pac Pan Pac Pan Pac Pan Pac Pan Pac Staff/all entrants	X	A A A A A A	D	3	M
6456	Culvert cleaning Culvert Inspections	Traffic, Uneven ground, High pressure water, Debris, Pooling water, rotting vegetation, Collapse, Flood, Fall during access/egress,	Death, Serious injury Struck by vehicle Eye damage from debris Strain, sprain Hydrogen sulphide, Drowning,	C	5	H	- Personnel do not enter any culvert, pipe - Pre-operational - prescriptions, mapping, hazard identification and risk assessment. - Onsite hazard identification and risk assessment - Machinery - regularly maintained in good order, COF/WOF - Pump – regularly maintained in good order with settings as per standard fire requirements - Traffic Management Plan & signage - RT communications - Ensure secure footing and stable body position 3 points of contact maintained during machine access/egress - PPE – inclusive of face shield/goggles, bibbed overalls as required - Inspections require 2 persons present	All times On issue of prescription Daily All times All times All times All times All times All times All times All time	Pan Pac/ Contractor Contractor Contractor Contractor Contractor All persons All persons All persons All persons All persons All persons (PP/C)	X	Elim A A Eng Eng I A A A PPE A	E	5	M
6458	Vehicle Rescue	People in vicinity Vehicles Terrain	Fatality Crushing Loss of control Rollover Asset damage	B	4	H	- Take 5, operational plan - Rescue controller agreed and in charge - Equipment suitable for the task; tow vehicle heavier than vehicle being rescued - Rated strops, dampening ropes (bag) in place - Identify chain shot area and apply minimum approach distances (segregation of personnel) - TMP as required by the location	Pre-operation Pre-operation Pre-operation Pre-operation All times	Contractor Contractor Contractor/operator Contractor/operator Operator Operator		A A E E I I	D	4	M
6464	Transporting Machinery	Machinery Transporter Operation Road, Quarry surface Steep or unstable terrain WAH	Fatalities Serious injuries Asset damage	5	B	E	- Roading as per Forest Engineering Manual, PP Engineering standards - Skid as per PP Standard, signed off - Forest & Harvest planning (incl retirement) - Corduroy as required - PP to be notified of Hauler transport - Qualified contractor with appropriate machinery & forest comms - Driver & Pilot licensed & certified for the task - Permit application as required - Rated & inspected anchor points & equipment - Task assessment (i.e. take 5) each operation - Trailer adjustments height/width agreed, JSA if narrow deck setting &/or public road is the only option - Route assessment approval, clear forest road arranged - Safety observer (person guiding the hauler) - Experienced operator - Segregation, safe zone established - TTM as required - Management of overlapping duties	Before start Before start Before start As required Before start All times All times As required All times All times All times All times All times All times All times All times As required All times	Pan Pac Pan Pac Pan Pac Contractors Contractors Contractors Contractors Contractors Contractors Contractors Contractors Contractors Contractors Contractors Contractors Contractors Contractors	X	Eng Eng A Eng A A A Eng A Eng A A A I A A	5	D	M
Environmental														
6435	Machinery and plant Maintenance	Hazardous Substances (storage, use, transportation, decanting, filling, mixing, disposal)	Soil, water, air contamination Consent breech Social License	B	3	H	- Isolate from sensitive sites. MADs); Waterways, wetlands – 10m all hazardous Substances (decanting, mixing, storage) - Container storage in compliant, labelled containers with bunding, diesel to be double skinned (as per PP Enviro stds) isolated site - Env Management Plan for business or task - Substitution as available - Trained personnel, with correct controls - SDS’s available and understood - Emergency planning and equipment available spill kits	All times All times Annual As required All times All times All times	Pan Pac, Contractor Pan Pac, Contractor Pan Pac, Contractor Pan Pac, Contractor Pan Pac, Contractor Pan Pac, Contractor	X	I Eng A S A A A	D	3	M

6437	All Operations	Weather related: Debris or soil mobilisation	NES-CF breach Consent breach Loss of containment Eco system damage Blocked waterways Archaeological damage Native flora and fauna damage Loss of social license	A	5	H	- Forest Afforestation and replanting planning - Retirement procedure - GIS Maps identify known items - Job prescription with monitoring - Slash & sediment traps (permanent/temporary) - Env. Management Plan for business or task - Minimum approach distances (MADs); - etlands 5m - aterways >3m buffer 3m, <3m buffer 5m - P additional buffer zone 5m - Slash/debris removal practises; - utover minimum minimum 10cmx2.4m SED, - anding minimum size 10cmx1m SED, - aterway & flood plain MAD 1:20yr zone - Benches - Skid & cutover rehabilitation completed - E dosing of trees in sensitive areas - Environmental training - Complaints & Disputes procedure	All times As required All times All times All times All times All times	Pan Pac Forestry Pan Pac Pan Pac Pan Pac, Contractor Pan Pac Contractor Contractor/All	X	A, Elim Elim A A A Eng I	B	5	H
6461	Travel in & outside Forest	Dust Debris Sediment (fords & river crossing)	NES-CF breach Disturbance to neighbours Eco system damage (freshwater) Loss of social license	A	3	H	- Ford design inclcs; Consent conditions and monitoring - Crossing formation, requires metalled approaches - Forest & county road speed limits - Dust suppression agents	All times All times As required As required	Pan Pac Pan Pac All Pan Pac	X	A, Eng Eng A Eng	D	3	M
6465	Mechanical Land Prep	Machine Unstable terrain Slash Debris Piles Ground Disturbance Sediment Hazardous Substances	NES-CF breach Damage to ecosystem, waterways Damage to native flora, fauna Damage to down stream infrastructure Public & Social license	B	4	H	- Retirement procedure - GIS Maps identify known items - Job prescription with monitoring - Job planning avoids nesting seasons, applies ESC - Slash & sediment traps (permanent/temporary) - Env. Management Plan for business or task - SOP requires tracking parallel to the land contour - Minimum approach distances (MADs); - etlands 10m - aterways >3m buffer 3m, <3m buffer 5m - P additional buffer zone 5m - alcon nests 200m buffer - aterways – 10m all hazardous Substances (decanting, mixing, storage) - Slash/debris removal practises; - utover minimum minimum 10cmx2.4m SED, - anding minimum size 10cmx1m SED, - aterway & flood plain MAD 1:20yr zone - Environmental training - Complaints & Disputes procedure	As required All times All times All times All times All times All times As required	Pan Pac Pan Pac Pan Pac Pan Pac Pan Pac, Contractor Contractor Contractor/All Contractor/All	X	A A A A Eng A A I	D	4	M

6466	Earthworks & Road Development	Machines Unstable or steep terrain Slash Debris Piles Ground Disturbance Stream bed, bank disturbance Sediment Failure of fill or berms Hazardous Substances	NES-CF breach Damage to ecosystem, waterways Damage to native flora, fauna Interrupted fish passage Damage to downstream infrastructure Public & Social license	B	5	H	- GIS Maps identify known items - Job prescription with monitoring - Job planning avoids nesting seasons, applies ESC - Slash & sediment traps (permanent/temporary) - Env. Management Plan for business or task - Earthworks Management Planning includes design of culverts, bridges, crossings, timing, fish passage - Minimum approach distances (MADs); - etlands 10m - aterways >3m buffer 3m, <3m buffer 5m - P additional buffer zone 5m - alcon nests 200m buffer - aterways – 10m all hazardous Substances (decanting, mixing, storage) - Hazardous substances spill management practises & spill kits - Stablising grasses, matting, compacting - Survey reporting and notifications for flora and fauna sighting - Environmental training - Complaints & Disputes procedure	All times All times All times All times All times All times All times As required	Pan Pac Pan Pac Pan Pac Pan Pac Contractor Contractor Contractor Contractor/All	X	A A A Eng A A I	C	5	H
6467	Quarry Operations	Machines Unstable or steep terrain Metal Dust Debris Sediment Hazardous Substances	NES-CF breach Damage to ecosystem, waterways Damage to native flora, fauna Interrupted fish passage Damage to downstream infrastructure Public & Social license	A	4	H	- GIS Maps identify known items - Job prescription with monitoring - Job planning avoids nesting seasons, applies ESC - Slash & sediment traps (permanent/temporary) - Env. Management Plan for business or task - Quarry Management Planning includes benches, water table formation, timing, fish passage - Minimum approach distances (MADs); - etlands 10m - aterways >3m buffer 3m, <3m buffer 5m - P additional buffer zone 5m - alcon nests 200m buffer - aterways – 10m all hazardous Substances (decanting, mixing, storage) - Hazardous substances spill management practises & spill kit - Stablising grasses, matting, compacting - Environmental training - Complaints & Disputes procedure	All times All times All times All times All times All times All times As required	Pan Pac Pan Pac Pan Pac Pan Pac Contractor Contractor Contractor/All	X	A A A Eng A A I	D	4	M
6468	Gravel Extraction	Machines Unstable or steep terrain Metal Dust Noise Debris Sediment Hazardous Substances	NES-CF breach Damage to ecosystem, waterways Damage to native flora, fauna Interrupted fish passage Damage to downstream infrastructure Public & Social license	A	4	H	- GIS Maps identify known items - Job prescription with monitoring - Job planning avoids nesting seasons, applies ESC - Slash & sediment traps (permanent/temporary) - Env. Management Plan for business or task - Quarry Management Planning includes benches, water table formation, timing, fish passage - Minimum approach distances (MADs); - etlands 10m - aterways >3m buffer 3m, <3m buffer 5m - P additional buffer zone 5m - alcon nests 200m buffer - aterways – 10m all hazardous Substances (decanting, mixing, storage) - Hazardous substances spill management practises & spill kit - Stablising grasses, matting, compacting - Environmental training - Complaints & Disputes procedure	All times All times All times All times All times All times All times As required	Pan Pac Pan Pac Pan Pac Pan Pac Contractor Contractor Contractor/All	X	A A A Eng A A I	D	4	M

6469	Temporary Crossings	Machines Unstable or steep terrain Metal Dust Noise Debris Sediment Hazardous Substances	NES-CF breach Damage to ecosystem, waterways Damage to native flora, fauna Interrupted fish passage Damage to downstream infrastructure Public & Social license	B	4	H	• GIS Maps identify known items, temporary crossings added and identified • Job planning minimises environmental impacts, identifies need for consent (or has a max duration of 2 months) • Job prescription with monitoring • Job planning avoids nesting seasons, applies ESC • Slash & sediment traps (permanent/temporary) • Env. Management Plan for business or task • Stream Crossing Management Plan for consented crossings • Minimum approach distances (MADs); ◦ etlands 10m ◦ aterways >3m buffer 3m, <3m buffer 5m ◦ aterways – 10m all hazardous Substances (decanting, mixing, storage) • Hazardous substances spill management practises & spill kit • Stablising grasses, matting, compacting • Environmental training • Complaints & Disputes procedure	All times All times All times All times All times All times All times As required As required As required As required All times As required	Pan Pac Pan Pac Pan Pac Pan Pac Contractor Contractor Contractor Contractor/All Contractor Contractor Pan Pac, Contractor Pan Pac	X	A A A Eng A A A I A Eng A A	D	4	M
6470	Permanent Crossings	Machines Unstable or steep terrain Metal Dust Noise Debris Sediment Hazardous Substances	NES-CF breach Damage to ecosystem, waterways Damage to native flora, fauna Interrupted fish passage Damage to downstream infrastructure Public & Social license	B	5	H	• GIS Maps identify known items, temporary crossings added and identified • Job planning minimises environmental impacts, identifies need for consent (or has a max duration of 2 months) • Job prescription with monitoring • Job planning avoids nesting seasons, applies ESC • Slash & sediment traps (permanent/temporary) • Env. Management Plan for business or task • Stream Crossing Management Plan for culvert installs >450mm • Minimum approach distances (MADs); ◦ etlands 10m ◦ aterways >3m buffer 3m, <3m buffer 5m ◦ aterways – 10m all hazardous Substances (decanting, mixing, storage) • Hazardous substances spill management practises & spill kit • Stablising grasses, matting, compacting • Environmental training • Complaints & Disputes procedure	All times All times All times All times All times All times All times As required As required As required As required All times As required	Pan Pac Pan Pac Pan Pac Pan Pac Contractor Contractor Contractor Contractor/All Contractor Contractor Pan Pac, Contractor Pan Pac	X	A A A Eng A A A I A Eng A A	D	4	M